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Mineral Revenues 1990

Report On Receipts From Federal And Indian Leases

U.S. Department of the Interior
Minerals Management Service
Royalty Management Program

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MMS
U.S. Department of the Interior
Minerals Management Service
Royalty Management Program

U.S. Department Of The Interior
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March 3, 1849

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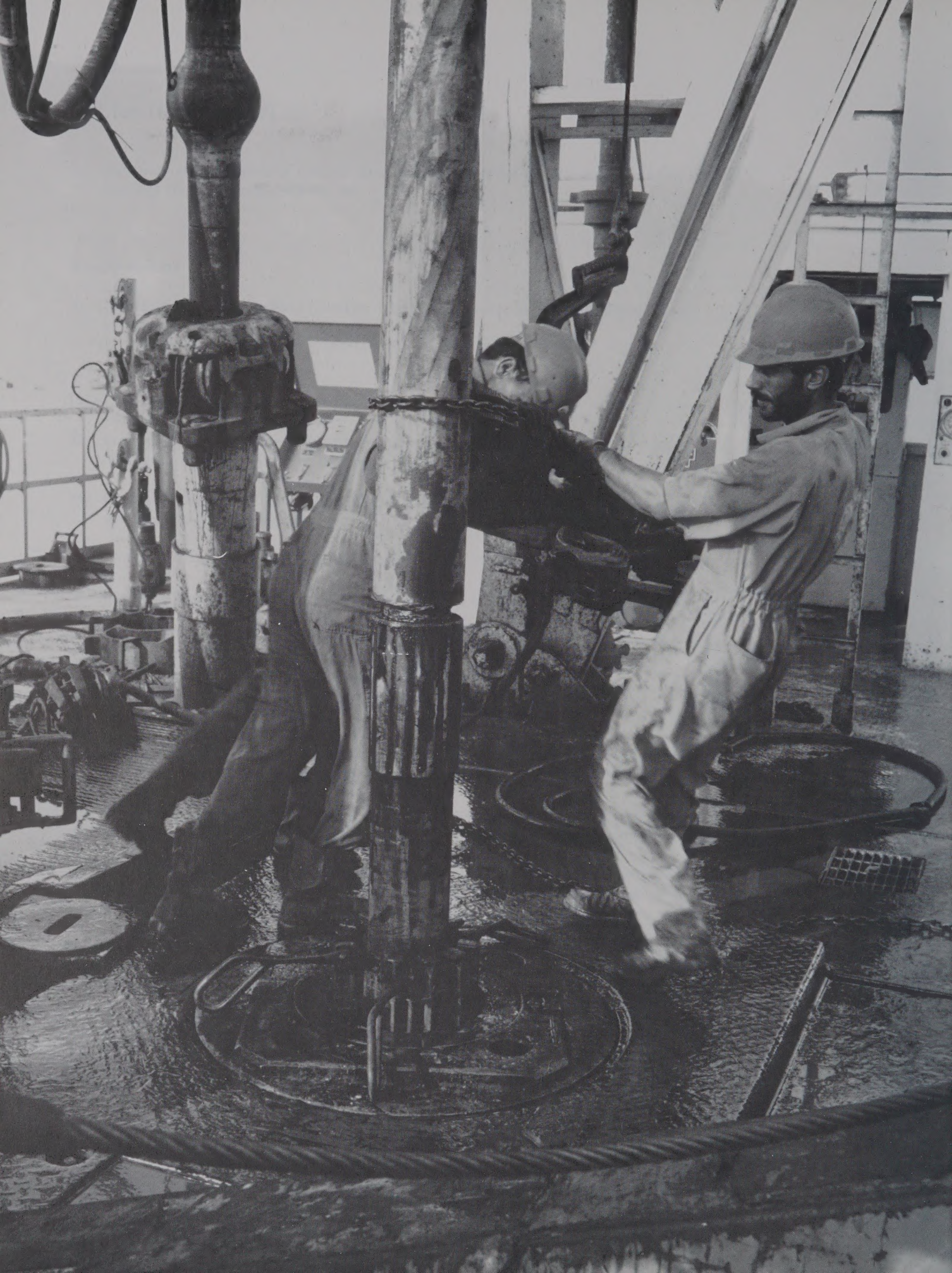
Oil and gas drilling operation.
(Photo courtesy Phillips Petroleum Company.) ⇨



Foreword

The Minerals Management Service (MMS) is pleased to present the 1990 report on receipts from Federal and Indian mineral leases. Mineral revenues from Federal and Indian lands increased 16.4 percent, or $641.7 million, from $3.9 billion in 1989 to nearly $4.6 billion in 1990. The increase is the result of a rise in oil prices due to the unrest in the Middle East; unseasonably cold weather in December 1989 that drove up natural gas prices and spurred gas production; and a record year for coal production due to increased demand by electric utilities.

The Department of the Interior pursued a series of initiatives in 1990 to improve accountability for the Nation's mineral revenues and to enhance the delivery of minerals management services through the MMS Royalty Management Program (RMP). The RMP published a Strategic Plan for Operations and Systems (Strategic Plan) in May 1990, culminating an aggressive effort to establish a common direction among constituents concerning RMP's mission, policy, and operations. The Strategic Plan provides a vision for the royalty program and a 5-year plan to fulfill that vision through a critical examination of RMP business processes, organization, and systems. The Strategic Plan employs a Total Quality Management philosophy involving both management and employees in a continuing effort to improve the quality of service to customers while reducing costs.

Revenue compliance efforts conducted through audit and other royalty underpayment detection programs generated $99.2 million in Fiscal Year 1990. This included $66 million in additional royalties, late payment interest, liquidated damages, and refund denials collected through audit programs administered by the RMP Royalty Compliance Division. Automated exception processing programs produced another $14.7 million for late payments, late reporting, and failure to report. Comparisons between sales reported by payors and production reported by operators to RMP automated systems yielded an additional $18.5 million.

The MMS published "Initiative for Indian Tribes and Allottees: An Action Plan for Improved Indian Royalty Management." The report addresses proposals developed by MMS and the Department's Royalty Management Advisory Committee to enhance RMP automated systems and accounting operations, improve royalty verification and enforcement, and increase consultation with Tribes and allottees.

The RMP continued development of the Business Systems Improvement Plan (BSIP) to consolidate and enhance existing automated royalty systems under a common shared data structure. The BSIP will expedite the movement of revenues, simplify reporting requirements, improve access to information, and strengthen royalty compliance programs.

A final amendment to the coal product valuation regulations was published in the Federal Register on August 30, 1990, with an effective date of October 1, 1990. The rulemaking restored coal product valuation regulations to reflect historic valuation procedures, ensuring that the royalty value for coal is commensurate with royalty values for oil, gas, and other minerals.

The MMS remains committed to providing quality service that is responsive to the needs of the States, Indian community, and industry in our stewardship of the Nation's mineral resources. I have developed an appreciation of the many issues confronting the minerals industry in my work with the Department prior to my appointment as Director of MMS in July 1991. My staff and I look forward to the challenges and opportunities of the new decade.

S. Scott Sewell

S. SCOTT SEWELL
Director

Terra Graphics'
OIL and GAS
PRODUCTION MAP
of the
ROCKY MOUNTAIN
REGION
NORTH DAKOTA
WILLISTON
BASIN
POWDER
SOUTH DAKOTA
NEBRASKA
JULESBURG
BASIN

Mineral Revenue Management in 1990

The Department of the Interior and the royalty management staff of the Minerals Management Service (MMS) continued efforts to improve accountability for the Nation's mineral revenues in 1990. Collections from royalties, rents, and bonuses on Federal lands and from royalties and rents on Indian lands increased 16.4 percent, from $3.9 billion in 1989 to nearly $4.6 billion in 1990 (tables 1 and 2, and figure 6). The increase is attributed to three factors:

- o Oil prices and production on Federal and Indian lands rose in the third and fourth quarters of the year in response to the unrest in the Middle East (figure 1 and table 3). Total U.S. domestic oil production declined during the year while oil imports continued to rise (figure 2 and table 10).

- o Unseasonably cold weather in the United States in December 1989 drove up natural gas prices and increased total U.S. domestic gas production in the first quarter of 1990 (figure 3). Significant production gains were observed on both Federal and Indian lands (table 3).

- o Total U.S. domestic, Federal, and Indian coal production reached record levels in 1990 due to growth in demand by electric utilities to build up coal stocks and to produce more coal-fired electricity (figure 3, and tables 3 and 10).

Significant program initiatives were introduced or continued during the year to resolve problems and to achieve the mission of the Royalty Management Program (RMP).

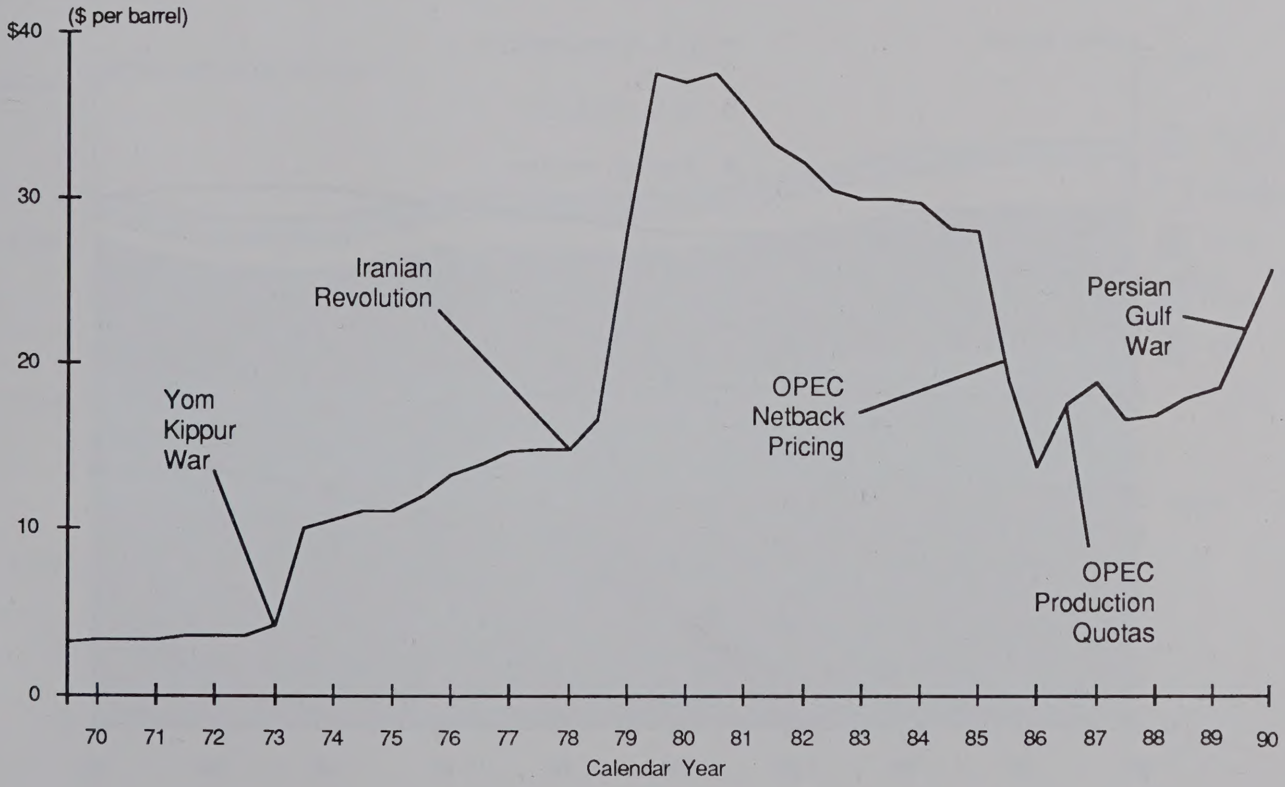


Figure 1. --- West Texas Intermediate crude oil prices, 1970-90
(Source: Oil and Gas Journal Energy Database)

Royalty Valuation and Standards Division employees in the RMP headquarters monitor product values and allowances reported by lessees.

RMP Strategic Plan for Operations and Systems

In 1988-89, the RMP requested a review and reassessment of its statutory and regulatory requirements, mission, goals, and performance from numerous constituents, including the Department's Royalty Management Advisory Committee (RMAC). The RMAC was established by the Secretary of the Interior to address key RMP issues and to advise the Secretary on matters that concern royalty participants. An aggressive effort was made to establish a common direction among constituents concerning RMP's mission, policy, and operations.

The RMP published a Strategic Plan for Operations and Systems (Strategic Plan) in May 1990 following the evaluation and an intensive planning effort. The Strategic Plan is designed to provide a vision for the royalty program and a 5-year plan to attain that vision through a long-range comprehensive examination of RMP's business processes, organization, and systems.

The Strategic Plan addresses critical RMP elements, including a stabilized mission responsive to constituents; accurate accounting and disbursement services; coordinated royalty verification and compliance programs; automated systems support of sufficient capacity and flexibility to serve clientele needs; organizational relationships based on mutual trust; and innovative management and leadership.

The Strategic Plan employs a Total Quality Management (TQM) process to guide RMP planning and operations. The TQM is a philosophy that involves the pursuit of continuous improvement through the collective efforts of management and employees. The philosophy is designed to provide a unified attitude of public service and stewardship of public resources. Initial TQM efforts have been directed toward fostering open and effective communications within RMP and between RMP and its clientele.

Royalty Underpayment Detection Programs

Audit and other royalty underpayment detection programs developed by MMS continued to ensure

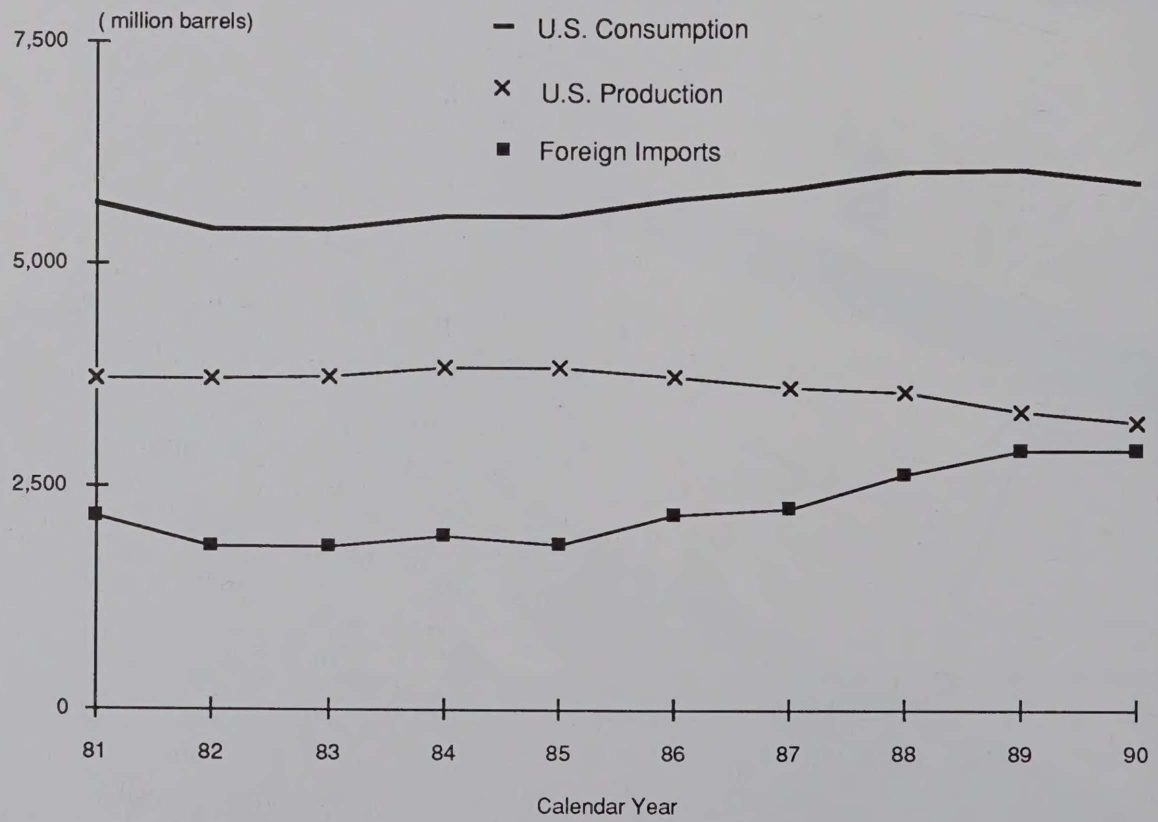


Figure 2. --- U.S. oil consumption, domestic production, and foreign imports, 1981-90
(Source: U.S. Department of Energy, Energy Information Administration)

compliance with mineral leasing laws and regulations. These programs collectively produced over $99.2 million in additional royalties, late payment interest, liquidated damages, and refund denials in Fiscal Year (FY) 1990.

The MMS Royalty Compliance Division (RCD) completed 2,904 lease audits in FY 1990, up 79 percent over a corresponding figure of 1,622 audits in FY 1989. The increase in lease coverage is attributed to the implementation of a contemporaneous audit cycle and the resolution of a number of legal issues outstanding from prior years.

Audit collections by RCD auditors totaled $50 million in FY 1990. An additional $11.6 million was realized from the denial of refund requests sought by industry.

The Secretary pursued an aggressive program to maintain contracts and to provide audit funding in FY 1990 to three Indian Tribes and nine States under the authority provided in sections 202 and 205 of the Federal Oil and Gas Royalty Management Act of 1982. The contracts were with the Navajo Nation, the Northern Ute Tribe, and the Southern Ute Tribe under section 202 and with California, Colorado, Louisiana, Montana, North Dakota, Oklahoma, Texas, Utah, and Wyoming under section 205. The contract with Texas was signed in September 1990. The contracts with Louisiana and Texas include the audit of royalties from leases issued under section 8(g) of the Outer Continental Shelf Lands Act Amendments of 1985.

The MMS further maintained a joint unfunded agreement with the Jicarilla Apache Tribe to perform audits of oil and gas leases, and an unfunded agreement with the Navajo Nation to perform audits of coal leases. Collections of additional revenues generated by funded and unfunded Tribal and State audit efforts totaled $4.4 million during the fiscal year.

The collective audit programs administered by RCD resulted in additional royalties, late-payment interest assessments, liquidated damages, and refund denials of $66 million in FY 1990.

Automated exception processing programs generated $14.7 million in FY 1990 in liquidated damages and

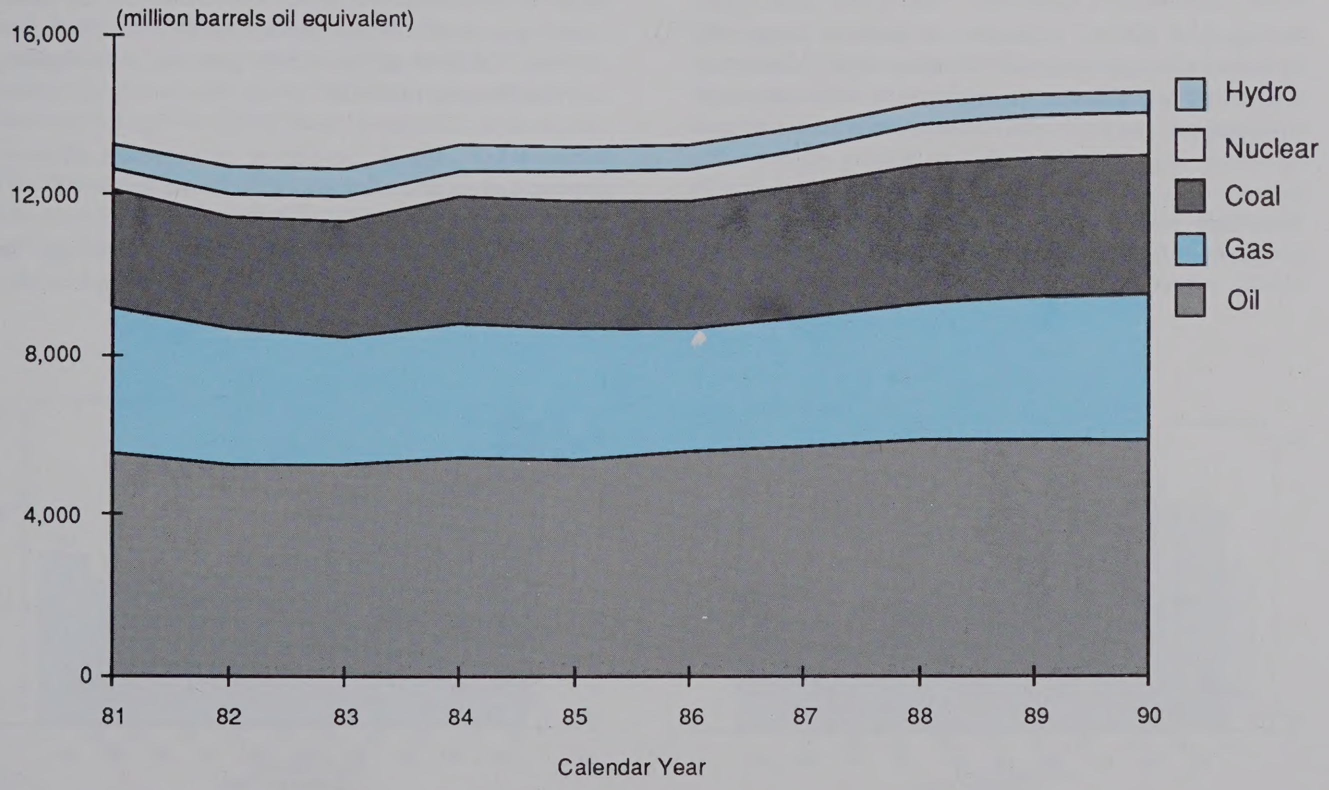


Figure 3. --- U.S. energy consumption by commodity, 1981-90

(Source: British Petroleum Statistical Review of World Energy, June 1991)

interest for late payments, late reporting, erroneous reporting, and failure to report mineral lease revenues. Interest is assessed at the prevailing Internal Revenue Service penalty rate.

Collections from comparisons of sales reported by payors to production reported by operators through RMP automated systems rose 49.2 percent, or $6.1 million, from $12.4 million in FY 1989 to $18.5 million in FY 1990.

Indian Initiatives

Efforts to improve services to Indian Tribes and allottees continued in 1990 with publication of the "Initiative for Indian Tribes and Allottees: An Action Plan for Improved Indian Royalty Management" (Action Plan).

The Special Committee on Investigations of the Senate Select Committee on Indian Affairs (Senate Select Committee) was authorized in February 1988 to conduct a comprehensive investigation into the Federal Government's relationship with Indians. The MMS Director assembled the Initiative for Indian Tribes and Allottees (IITA) Task Force to evaluate the Senate Select Committee's concerns. The IITA Task Force worked with RMAC to develop a series of proposals, including enhancements to RMP automated systems and accounting operations, improved royalty verification and enforcement, and increased consultation with Tribes and allottees.

The MMS submitted a list of recommendations to the Senate Select Committee on September 18, 1989. The MMS subsequently published the Action Plan in February 1990, addressing each recommendation in detail. Some of the more significant achievements in 1990 follow:

o The MMS and the Bureau of Indian Affairs (BIA) developed a revised Indian Explanation of Payment report. The report provides more detailed data with improved clarity and format.

o The MMS developed quarterly production and sales reports for Indian Tribes, allottees, and BIA. The reports provide a systematic comparison of production data from operators with royalty information from payors.

o The RMP dedicated special audit project teams solely to Indian lease audits. The first spot-audit team was established in Oklahoma City, Oklahoma, in March 1990.

o The MMS implemented enhancements to RMP automated systems in November 1990 to identify missing data, process amended data, and resolve exceptions.

o The RMP requested and received additional staffing authority for the Office of External Affairs (OEA) for FY 1991 and FY 1992. The OEA pursued plans to open new allottee service offices in Oklahoma City, Oklahoma, in 1991 and in Farmington, New Mexico, in 1992.

Senior RMP officials conducted an outreach effort to apprise Tribes and allottees of the initiatives.

The OEA conducted allottee contact meetings in New Mexico, Oklahoma, and Utah to provide onsite

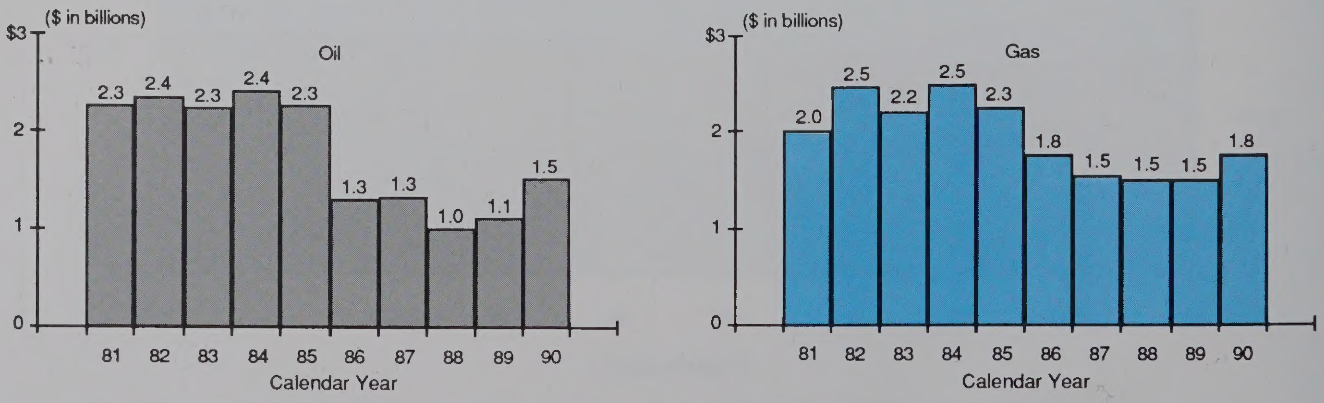


Figure 4. --- Royalties from Federal and Indian mineral leases, 1981-90

resolution of problems and to communicate directly with allottees concerning their oil and gas lease problems. The OEA organized and attended a select number of lease inspections by Bureau of Land Management (BLM) officials in New Mexico and Oklahoma in the presence of allottees and BIA representatives.

The OEA also sponsored a lease management training program for Indian Tribes and allottees. The initial seminar was conducted in Durango, Colorado, in May 1990 for 70 Tribal officials and allottees. The second seminar was conducted in Billings, Montana, in October 1990 for 75 Tribal officials and allottees. The seminars addressed a number of lease management issues presented by BIA, BLM, and MMS officials.

Systems Improvement Initiatives

The three principal operating systems in RMP, the Auditing and Financial System (AFS), the Bonus and Rental Accounting Support System, and the Production Accounting and Auditing System (PAAS), continued successful operations in 1990. The RMP initiated a Business Systems Improvement Plan (BSIP) in October 1989 to improve and consolidate existing automated royalty systems under a common shared data structure. The process involves software modernization and functional enhancements to RMP financial and production accounting systems. The BSIP will provide subject databases addressing information through broad business categories rather than by specific applications.

The consolidation of RMP systems under a common data structure will improve data validation and enhance system efficiency. The design of the new royalty system will expedite the movement of revenues, simplify reporting requirements, improve access to information, and strengthen royalty compliance programs.

The BSIP project will be implemented in two phases. Phase I will establish the subject database environment, providing enhancements to reference data and to royalty, financial, and exception processing functions. The database and enhancements were moved into a test environment in January 1990. Testing of the initial design of the new royalty system began in that environment in September 1990. Phase I is scheduled for completion in December 1991 while Phase II is scheduled for completion in March 1992.

Product Valuation

Coal product valuation regulations were published in the Federal Register on January 13, 1989, with an effective date of March 1, 1989. A number of State, Tribal, and industry representatives voiced objections to the new rules. The Secretary asked the Director to chair a panel of senior departmental officials to hear the views of these constituents and the public to determine if a better solution could be developed. A public meeting was conducted by the panel in Lakewood, Colorado, and written comments were solicited.

The panel advised the Secretary of the respondents' concerns. The Department assessed the fiscal impact of implementation of the rules on affected parties and the impact on coal production. The Department subsequently published a Federal Register Notice on February 13, 1990, of a proposed amendment to the coal product valuation regulations. Public meetings were conducted in St. Louis, Missouri, in April 1990 and in

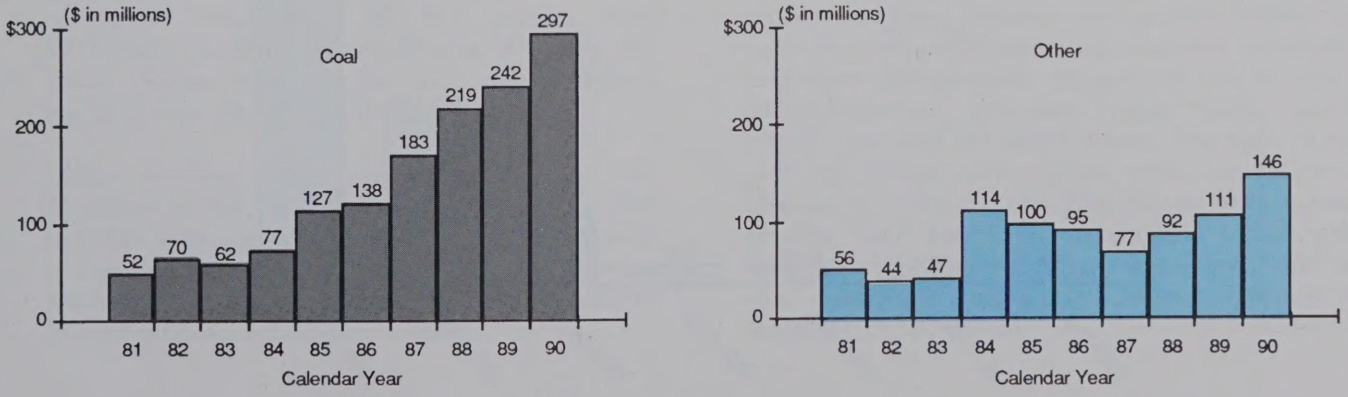


Figure 4. --- Royalties from Federal and Indian mineral leases, 1981-90 (cont.)

Madison, Wisconsin, in May 1990. Written comments were again solicited.

A final amendment to the coal product valuation regulations was published in the Federal Register on August 30, 1990, with an effective date of October 1, 1990. The final rulemaking restored coal product valuation regulations to reflect historic valuation procedures.

The MMS notified all solid mineral payors in a letter dated September 18, 1990, that the exclusions from gross proceeds for production fees and taxes could no longer be taken for coal produced after September 30, 1990. The rulemaking ensures that the royalty value for coal is commensurate with the royalty values for oil, gas, and other minerals.

Outreach Training Programs

The RMP continued an aggressive outreach training program to provide instructions and information for operator, payor, industry, State, and Tribal representatives.

The RMP Royalty Valuation and Standards Division conducted seminars in four different locations during March-April 1990 addressing manufacturing and transportation allowances. The training included calculation procedures, reporting requirements, regulatory provisions, and other related issues. Over 400 State, Tribal, and industry officials attended the sessions.

The RMP Production Accounting Division provided PAAS training and updated operators on reporting requirements through 22 sessions in 1990. The sessions were attended by 518 individuals representing 281 companies. Representatives from BIA attended five sessions and BLM officials attended eight sessions during the year.

The RMP Fiscal Accounting Division provided training and updated payors in valuation procedures, allowance deductions, and royalty reporting and payment requirements for oil, gas, and solid minerals in 1990. The training included 19 seminars attended by a record 838 participants representing 282 payor firms.

The RMP issued a new edition of the MMS Auditing and Financial System Payor Handbook - Solid Minerals, with a revision date of August 31, 1990. The revised handbook reflects changes in AFS processing procedures and applicable regulations.

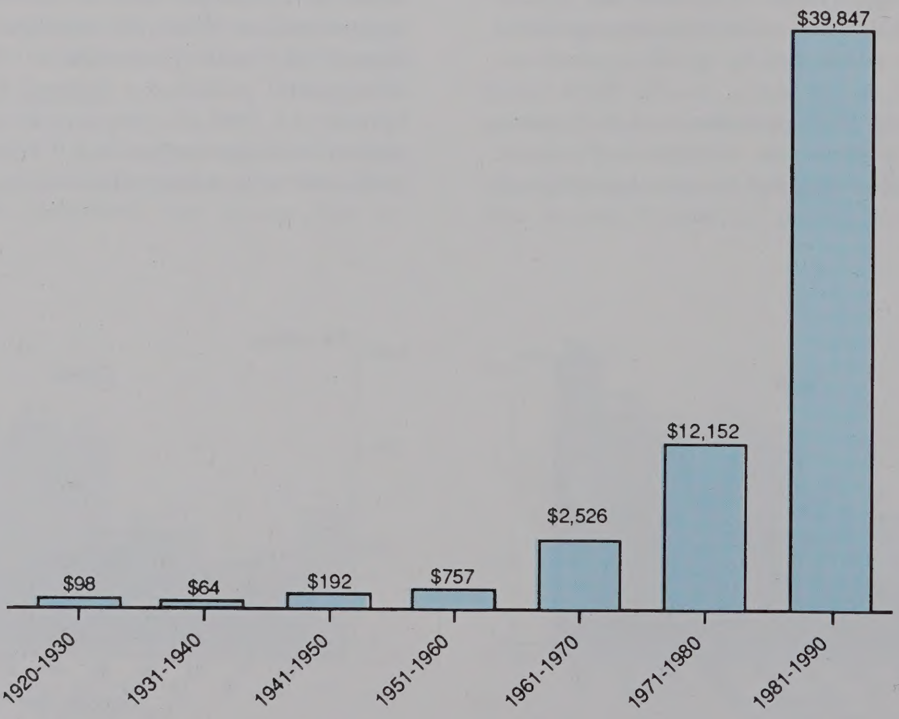


Figure 5. — Royalties, in millions, from Federal and Indian mineral leases, Calendar Years 1920-90

Mineral Production and Revenues

Revenues from the Outer Continental Shelf (OCS) increased 15.5 percent, from $2.9 billion in 1989 to nearly $3.4 billion in 1990 (tables 1 and 2). Oil royalties jumped 33.3 percent, or $272.4 million, from 1989 to 1990 due to the unrest in the Middle East and the attendant rise in oil prices during the last half of the year. Gas royalties increased 18.4 percent, or $239.2 million, over corresponding figures in 1989 due to increased prices and production associated with a cold snap in December 1989 (figure 10 and table 14).

Offshore bonuses from competitive lease sales fell 9.5 percent, from $645.6 million in 1989 to $584.3 million in 1990 (tables 1 and 2). The decline results from the suspension of OCS lease sales in selected areas in an effort to balance development of the Nation's offshore energy resources with the protection of the environment.

Federal onshore revenues rose 18.3 percent, from $875.9 million in 1989 to over $1 billion in 1990 (tables 1 and 2). Oil production increased 10 percent in 1990 while oil royalties jumped 37.9 percent, or $99.6 million, reflecting the rise in oil prices in the last half of the year. Gas production rose 34 percent and gas royalties increased 27.8 percent, or $49.1 million, during the year. The increase is again attributed to the unseasonably cold weather in December 1989. Coal production reached a record level of 253 million short tons during the year, up 43.7 million short tons, or 20.9 percent, over corresponding figures in 1990. Coal royalties increased a comparable 21.3 percent, or $41.5 million (figure 12 and table 19). The growth is due to an increase in coal demand by electric utilities in 1990 to build up coal stocks and to produce more coal-fired electricity.

Onshore Federal bonus receipts, generated by competitive lease sales, fell 35.8 percent, from $79.6 million in 1989 to $51.1 million in 1990 (table 24). Bonus receipts from oil, gas, coal, and geothermal resources were all down in 1990.

Indian revenues from royalties and rents rose 23 percent, or $28.5 million, from $123.9 million in 1989 to $152.4 million in 1990 (tables 1 and 2). The growth is due to an increase in oil, gas, and coal royalties attributed to many of the same factors that affected Federal offshore and onshore revenues.

Interest in the Royalty-In-Kind program remained low in 1990 due to availability of low-priced crude oil on the open market. Two offshore and four onshore contractors collectively purchased 6.5 million barrels of oil valued at $130.4 million (table 31).

Report Format

Numerous revisions have been made to the 1990 report. Many tables and figures have been expanded to include 10 years of historical information. This action was taken at the request of a number of our readers following the publication of our 1980-89 decade report in February 1991.

Some information in this report necessarily includes estimated data that may be revised after publication. Information in parentheses is attributed to credits for prior-year adjustments. All information in this report is by calendar year unless specifically noted otherwise.

Production figures represent the quantity reported sold during the year. Production volume for each commodity is measured in standard units throughout the report. Oil is measured in barrels (42 U.S. gallons); gas, carbon dioxide, nitrogen, and helium are measured in Mcf (thousand cubic feet); gas plant products are measured in gallons; geothermal and heated water sources are measured in millions of Btu's; amethyst is measured in grams; garnet concession is measured in tickets; quartz crystals are measured in pounds; and all other remaining solid minerals are measured in short tons (2,000 pounds).

Minerals referred to in this report as "Other" or as "Other Production" may include the following solid and fluid minerals: amethyst, barite, bentonite, carbon dioxide, chat, clay, copper, feldspar, fluorspar, garnet concession, garnet sands, gas lost, gas plant products, geothermal energy, gilsonite, gold, gypsum, helium, hot water, iron ore, langbeinite, lead, leonardite, limestone, magnesium, molybdenum, nitrogen, oil lost, oil shale, phosphate, potash, potassium, purge liquor, quartz crystals, salt, sand and gravel, scoria, silica sand, silver, soda ash, sodium, sulfur, sylvite, trona ore, tungsten, uranium, wavellite, and zinc. Gas plant products include gasoline, liquid petroleum gas, propane, butane, and other gas commodities measured in gallons. Some of these minerals are referenced in tables 4, 5, 6, 7, 8, 9, 10, 18, 20, 23, 26, and 36.

Table 1.--Revenues from Federal and Indian mineral leases in the United States, 1981-90

	Royalties	Minimum Royalties	Rents	Bonuses	Total
1981					
Offshore Federal..	$3,288,550,224	$ 2,250,300	$ 21,731,035	$6,652,980,897	$ 9,965,512,456
Onshore Federal...	964,686,380	---	D/I	128,673,005	1,093,359,385
Indian............	161,473,757	---	D/I	---	161,473,757
Total.........	**$4,414,710,361**	**$ 2,250,300**	**$ 21,731,035**	**$6,781,653,902**	**$11,220,345,598**
1982					
Offshore Federal..	$3,814,871,635	$ 2,393,759	$ 20,055,201	$3,987,490,009	$ 7,824,810,604
Onshore Federal...	972,481,830	---	154,728,000	125,270,858	1,252,480,688
Indian............	162,726,747	---	4,656,065	---	167,382,812
Total.........	**$4,950,080,212**	**$ 2,393,759**	**$179,439,266**	**$4,112,760,867**	**$ 9,244,674,104**
1983					
Offshore Federal..	$3,454,318,079	$ 4,463,658	$ 32,463,097	$5,749,016,369	$ 9,240,261,203
Onshore Federal...	962,584,998	---	129,511,928	62,108,205	1,154,205,131
Indian............	156,373,198	---	3,621,550	---	159,994,748
Total.........	**$4,573,276,275**	**$ 4,463,658**	**$165,596,575**	**$5,811,124,574**	**$10,554,461,082**
1984					
Offshore Federal..	$3,964,180,673	$ 3,458,139	$ 35,607,835	$3,928,876,308	$ 7,932,122,955
Onshore Federal...	1,016,695,332	---	117,754,744	50,068,801	1,184,518,877
Indian............	128,386,900	---	3,576,549	---	131,963,449
Total.........	**$5,109,262,905**	**$ 3,458,139**	**$156,939,128**	**$3,978,945,109**	**$ 9,248,605,281**
1985					
Offshore Federal..	$3,638,813,376	$ 4,067,321	$ 61,999,144	$1,557,650,714	$ 5,262,530,555
Onshore Federal...	992,953,891	1,782,388	105,809,280	47,594,759	1,148,140,318
Indian............	139,424,708	---	3,372,750	---	142,797,458
Total.........	**$4,771,191,975**	**$ 5,849,709**	**$171,181,174**	**$1,605,245,473**	**$ 6,553,468,331**
1986					
Offshore Federal..	$2,559,660,623	$ 5,176,608	$ 52,958,237	$ 187,094,747	$ 2,804,890,215
Onshore Federal...	664,470,423	7,921,348	73,453,353	30,209,062	776,054,186
Indian............	105,028,658	---	3,018,833	---	108,047,491
Total.........	**$3,329,159,704**	**$13,097,956**	**$129,430,423**	**$ 217,303,809**	**$ 3,688,991,892**

Table 1.--Revenues from Federal and Indian mineral leases in the United States, 1981-90

	Royalties	Minimum Royalties	Rents	Bonuses	Total
1987					
Offshore Federal..	$2,351,164,026	$21,399,332	$ 74,642,712	$ 497,247,006	$ 2,944,453,076
Onshore Federal...	682,411,009	14,377,320	61,449,391	34,752,714	792,990,434
Indian...........	104,787,583	---	1,206,406	---	105,993,989
Total.........	**$3,138,362,618**	**$35,776,652**	**$137,298,509**	**$ 531,999,720**	**$ 3,843,437,499**
1988					
Offshore Federal..	$2,078,601,613	$16,822,821	$ 62,867,785	$1,259,548,738	$ 3,417,840,957
Onshore Federal...	649,534,932	11,279,396	64,810,845	59,394,838	785,020,011
Indian...........	112,282,668	---	1,255,603	---	113,538,271
Total.........	**$2,840,419,213**	**$28,102,217**	**$128,934,233**	**$1,318,943,576**	**$ 4,316,399,239**
1989					
Offshore Federal..	$2,151,389,563	$38,890,914	$ 79,247,653	$ 645,646,870	$ 2,915,175,000
Onshore Federal...	703,271,378	14,596,315	64,582,840	93,490,354	875,940,887
Indian...........	122,429,802	---	1,454,523	---	123,884,325
Total.........	**$2,977,090,743**	**$53,487,229**	**$145,285,016**	**$ 739,137,224**	**$ 3,915,000,212**
1990					
Offshore Federal..	$2,684,799,523	$19,298,248	$ 79,339,130	$ 584,301,918	$ 3,367,738,819
Onshore Federal...	906,932,447	3,920,033	62,054,404	63,619,572	1,036,526,456
Indian...........	151,992,888	---	438,483	---	152,431,371
Total.........	**$3,743,724,858**	**$23,218,281**	**$141,832,017**	**$ 647,921,490**	**$ 4,556,696,646**

NOTE: D/I indicates that data are incomplete for the revenue source during the time period.

Federal onshore minimum royalties are included in Federal onshore royalties for 1981-84. Standard Indian leases do not contain minimum royalty provisions. Most Indian leases retain rental provisions after the lease is producing.

Indian rent revenues represent fiscal year data from Bureau of Indian Affairs (BIA) records for 1982-87. Indian rent revenues represent calendar year data from Minerals Management Service (MMS) records for producing leases during the period 1988-90.

Onshore Federal bonus revenues represent fiscal year data from Bureau of Land Management Public Land Statistics for 1981-87. Onshore Federal bonus revenues represent calendar year data from MMS records for 1988-90. Indian bonus revenues are collected by BIA.

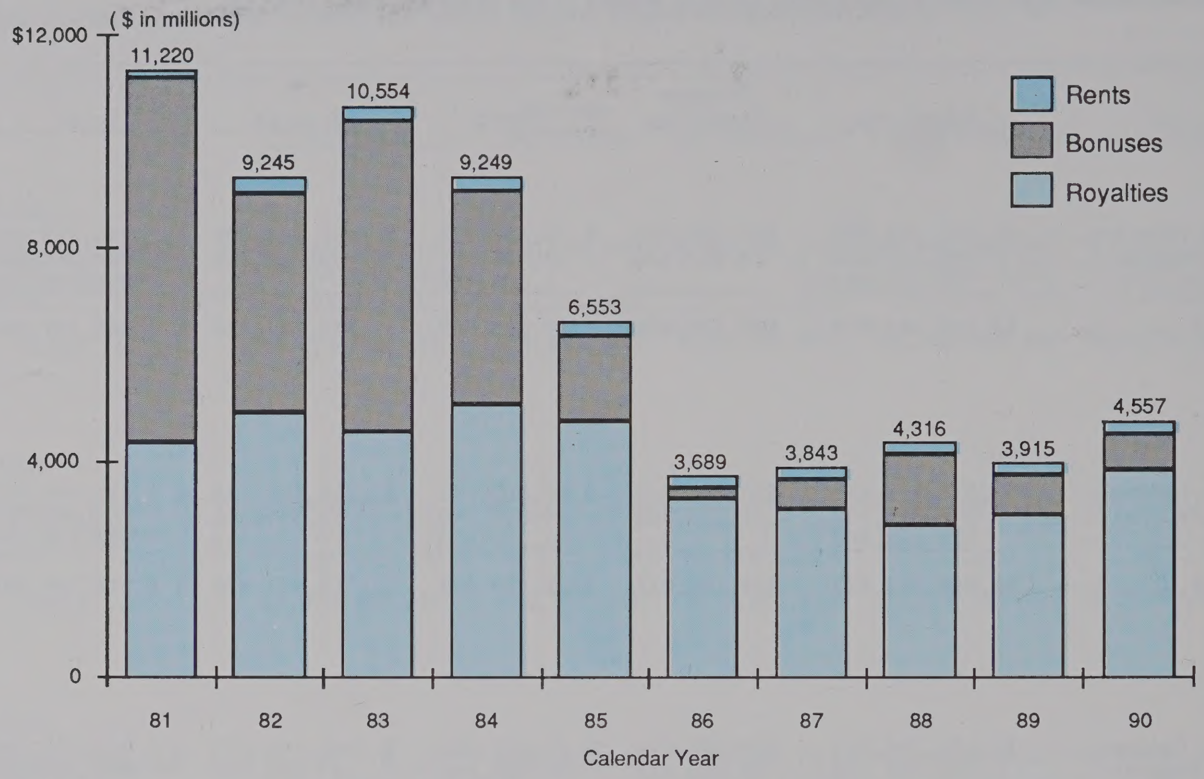


Figure 6. --- Revenues from Federal and Indian mineral leases by source, 1981-90

Production Accounting Division employees in the RMP headquarters ensure that production reports and revenue payments reported to MMS are consistent.

Table 2.--Royalties, rents, and bonuses from Federal and Indian mineral leases in the United States, 1981-90

	Federal Lands		Indian	Total
	Offshore	Onshore	Lands	Revenues
1981				
Oil Royalties	$1,575,316,509	$ 604,782,996	$103,919,408	$ 2,284,018,913
Gas Royalties	1,711,962,893	274,731,205	36,880,307	2,023,574,405
Coal Royalties	---	43,009,278	8,604,304	51,613,582
Other Royalties	1,270,822	42,162,901	12,069,738	55,503,461
Minimum Royalties	2,250,300	---	---	2,250,300
Rents	21,731,035	D/I	D/I	21,731,035
Bonuses	6,652,980,897	128,673,005	---	6,781,653,902
Total	**$9,965,512,456**	**$1,093,359,385**	**$161,473,757**	**$11,220,345,598**
1982				
Oil Royalties	$1,740,288,038	$ 524,530,180	$ 92,559,824	$ 2,357,378,042
Gas Royalties	2,074,583,597	349,439,615	54,378,374	2,478,401,586
Coal Royalties	---	61,898,704	8,527,548	70,426,252
Other Royalties	---	36,613,331	7,261,001	43,874,332
Minimum Royalties	2,393,759	---	---	2,393,759
Rents	20,055,201	154,728,000	4,656,065	179,439,266
Bonuses	3,987,490,009	125,270,858	---	4,112,760,867
Total	**$7,824,810,604**	**$1,252,480,688**	**$167,382,812**	**$ 9,244,674,104**
1983				
Oil Royalties	$1,639,521,510	$ 523,898,702	$ 89,727,647	$ 2,253,147,859
Gas Royalties	1,814,796,569	346,762,100	50,287,896	2,211,846,565
Coal Royalties	---	52,330,292	9,416,941	61,747,233
Other Royalties	---	39,593,904	6,940,714	46,534,618
Minimum Royalties	4,463,658	---	---	4,463,658
Rents	32,463,097	129,511,928	3,621,550	165,596,575
Bonuses	5,749,016,369	62,108,205	---	5,811,124,574
Total	**$9,240,261,203**	**$1,154,205,131**	**$159,994,748**	**$10,554,461,082**

Table 2.--Royalties, rents, and bonuses from Federal and Indian mineral leases in the United States, 1981-90 (cont.)

	Federal Lands		Indian	Total
	Offshore	Onshore	Lands	Revenues
1984				
Oil Royalties...........	$1,823,447,844	$ 519,046,615	$ 75,973,022	$ 2,418,467,481
Gas Royalties...........	2,091,276,753	371,155,164	37,295,148	2,499,727,065
Coal Royalties..........	---	69,359,702	7,613,759	76,973,461
Other Royalties.........	49,456,076	57,133,851	7,504,971	114,094,898
Minimum Royalties.......	3,458,139	---	---	3,458,139
Rents...................	35,607,835	117,754,744	3,576,549	156,939,128
Bonuses.................	3,928,876,308	50,068,801	---	3,978,945,109
Total...............	**$7,932,122,955**	**$1,184,518,877**	**$131,963,449**	**$ 9,248,605,281**
1985				
Oil Royalties...........	$1,707,184,899	$ 492,367,908	$ 75,025,974	$ 2,274,578,781
Gas Royalties...........	1,905,597,880	328,657,320	35,853,169	2,270,108,369
Coal Royalties..........	---	103,473,037	23,403,336	126,876,373
Other Royalties.........	26,030,597	68,455,626	5,142,229	99,628,452
Minimum Royalties.......	4,067,321	1,782,388	---	5,849,709
Rents...................	61,999,144	105,809,280	3,372,750	171,181,174
Bonuses.................	1,557,650,714	47,594,759	---	1,605,245,473
Total...............	**$5,262,530,555**	**$1,148,140,318**	**$142,797,458**	**$ 6,553,468,331**
1986				
Oil Royalties...........	$1,015,037,703	$ 268,689,563	$ 42,420,370	$ 1,326,147,636
Gas Royalties...........	1,518,338,984	224,601,025	27,263,985	1,770,203,994
Coal Royalties..........	---	108,420,624	29,476,973	137,897,597
Other Royalties.........	26,283,936	62,759,211	5,867,330	94,910,477
Minimum Royalties.......	5,176,608	7,921,348	---	13,097,956
Rents...................	52,958,237	73,453,353	3,018,833	129,430,423
Bonuses.................	187,094,747	30,209,062	---	217,303,809
Total...............	**$2,804,890,215**	**$ 776,054,186**	**$108,047,491**	**$ 3,688,991,892**

Table 2.--Royalties, rents, and bonuses from Federal and Indian mineral leases in the United States, 1981-90 (cont.)

	Federal Lands		Indian	Total
	Offshore	Onshore	Lands	Revenues
1987				
Oil Royalties...........	$ 999,273,491	$ 289,069,747	$ 45,813,797	$ 1,334,157,035
Gas Royalties...........	1,337,761,434	183,941,568	22,240,298	1,543,943,300
Coal Royalties..........	---	152,470,369	30,481,374	182,951,743
Other Royalties.........	14,129,101	56,929,325	6,252,114	77,310,540
Minimum Royalties.......	21,399,332	14,377,320	---	35,776,652
Rents...................	74,642,712	61,449,391	1,206,406	137,298,509
Bonuses.................	497,247,006	34,752,714	---	531,999,720
Total...............	**$2,944,453,076**	**$ 792,990,434**	**$105,993,989**	**$ 3,843,437,499**
1988				
Oil Royalties...........	$ 747,454,359	$ 230,896,902	$ 36,046,679	$ 1,014,397,940
Gas Royalties...........	1,310,301,872	182,044,265	22,492,041	1,514,838,178
Coal Royalties..........	---	172,795,745	46,691,767	219,487,512
Other Royalties.........	20,845,382	63,798,020	7,052,181	91,695,583
Minimum Royalties.......	16,822,821	11,279,396	---	28,102,217
Rents...................	62,867,785	64,810,845	1,255,603	128,934,233
Bonuses.................	1,259,548,738	59,394,838	---	1,318,943,576
Total...............	**$3,417,840,957**	**$ 785,020,011**	**$113,538,271**	**$ 4,316,399,239**
1989				
Oil Royalties...........	$ 818,591,495	$ 263,056,653	$ 40,835,885	$ 1,122,484,033
Gas Royalties...........	1,300,193,995	176,414,932	24,632,980	1,501,241,907
Coal Royalties..........	---	194,541,835	47,677,927	242,219,762
Other Royalties.........	32,604,073	69,257,958	9,283,010	111,145,041
Minimum Royalties.......	38,890,914	14,596,315	---	53,487,229
Rents...................	79,247,653	64,582,840	1,454,523	145,285,016
Bonuses.................	645,646,870	93,490,354	---	739,137,224
Total...............	**$2,915,175,000**	**$ 875,940,887**	**$123,884,325**	**$ 3,915,000,212**

Table 2.--Royalties, rents, and bonuses from Federal and Indian mineral leases in the United States, 1981-90 (cont.)

	Federal Lands		Indian	Total
	Offshore	Onshore	Lands	Revenues
1990				
Oil Royalties..........	$1,090,953,312	$ 362,642,855	$ 52,207,285	$ 1,505,803,452
Gas Royalties..........	1,539,364,756	225,489,863	29,750,975	1,794,605,594
Coal Royalties.........	---	236,067,011	60,791,496	296,858,507
Other Royalties........	54,481,455	82,732,718	9,243,132	146,457,305
Minimum Royalties......	19,298,248	3,920,033	---	23,218,281
Rents..................	79,339,130	62,054,404	438,483	141,832,017
Bonuses................	584,301,918	63,619,572	---	647,921,490
Total...............	**$3,367,738,819**	**$1,036,526,456**	**$152,431,371**	**$ 4,556,696,646**

NOTE: D/I indicates that data are incomplete for the revenue source during the time period.

Federal onshore minimum royalties are included in Federal onshore oil, gas, coal, and other royalties for 1981-84. Standard Indian leases do not contain minimum royalty provisions. Most Indian leases retain rental provisions after the lease is producing.

Indian rent revenues represent fiscal year data from Bureau of Indian Affairs (BIA) records for 1982-87. Indian rent revenues represent calendar year data from Minerals Management Service (MMS) records for producing leases during the period 1988-90.

Onshore Federal bonus revenues represent fiscal year data from Bureau of Land Management Public Land Statistics for 1981-87. Onshore Federal bonus revenues represent calendar year data from MMS records for 1988-90. Indian bonus revenues are collected by BIA.

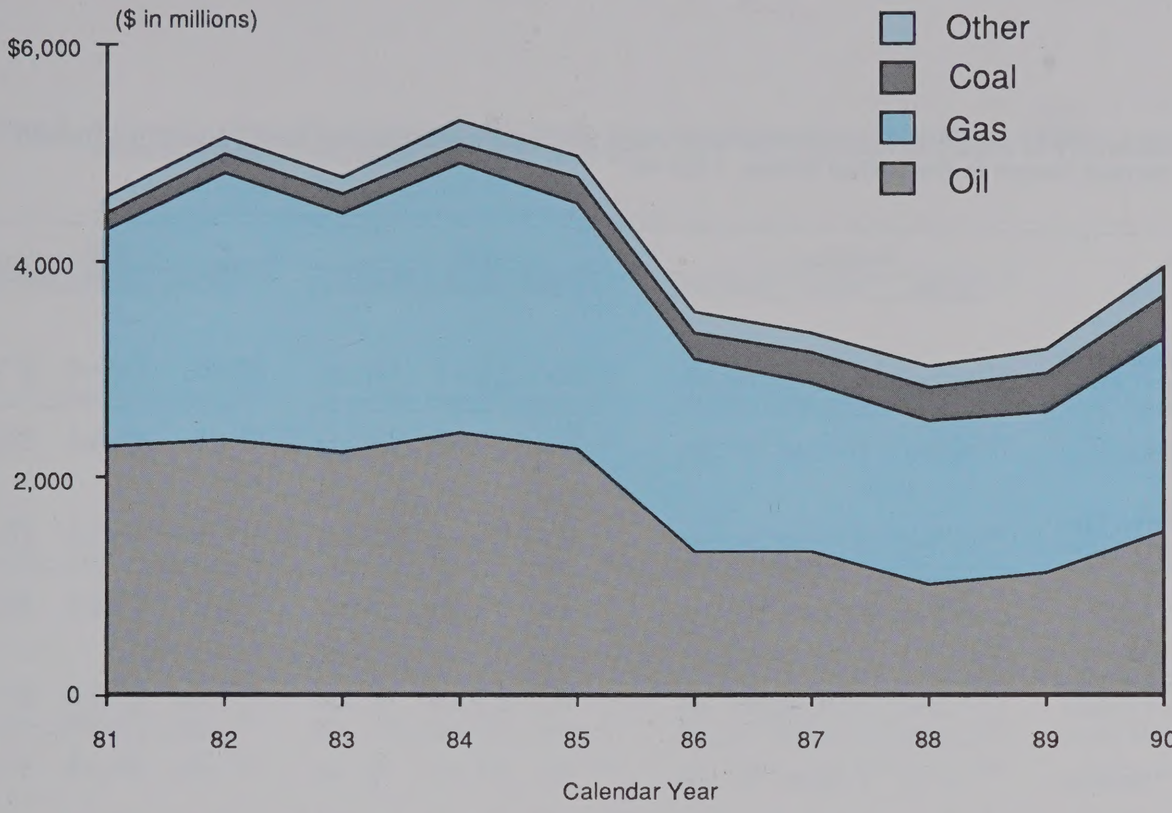


Figure 7. --- Royalties from Federal and Indian mineral leases by commodity, 1981-90

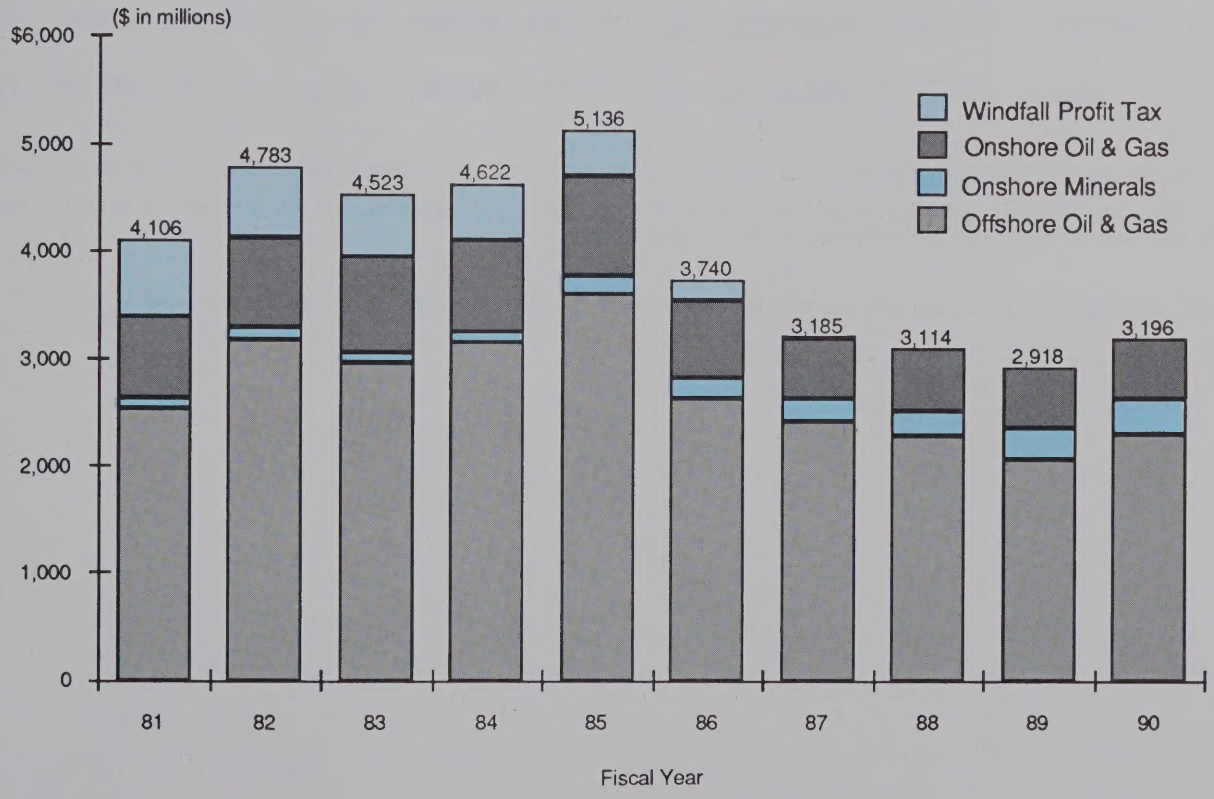


Figure 8. --- Royalties from Federal and Indian mineral leases, 1981-90

Table 3.--Summary of royalty revenues other than rents and bonuses collected from Federal and Indian mineral leases in the United States, 1920-90

	1920-86			1987			1988		
	Volume	Value	Royalties	Volume	Value	Royalties	Volume	Value	Royalties
Oil Production									
Federal Lands	14,856	$137,973	$20,901	516	$ 8,734	$1,288	460	$ 6,702	$ 978
Indian Lands	1,233	7,479	1,057	19	322	46	17	247	36
Subtotal	16,089	$145,452	$21,958	535	$ 9,056	$1,334	477	$ 6,949	$1,014
Gas Production									
Federal Lands	105,434	$119,712	$18,726	5,313	$ 9,610	$1,522	5,212	$ 9,391	$1,492
Indian Lands	3,686	2,910	386	108	183	22	103	175	22
Subtotal	109,120	$122,622	$19,112	5,421	$ 9,793	$1,544	5,315	$ 9,566	$1,514
Coal Production									
Federal Lands	1,396	$ 15,169	$ 565	171	$ 2,670	$ 152	199	$ 2,430	$ 173
Indian Lands	351	3,320	139	24	443	30	26	490	47
Subtotal	1,747	$ 18,489	$ 704	195	$ 3,113	$ 182	225	$ 2,920	$ 220
Other Production									
Federal Lands	N/A	$ 16,046	$ 960	N/A	$ 937	$ 71	N/A	$ 1,256	$ 85
Indian Lands	N/A	1,825	197	N/A	51	6	N/A	55	7
Subtotal	N/A	$ 17,871	$ 1,157	N/A	$ 988	$ 77	N/A	$ 1,311	$ 92
Total		**$304,434**	**$42,931**		**$22,950**	**$3,137**		**$20,746**	**$2,840**

NOTE: Data are rounded: dollars in millions for both sales value and revenues, oil in millions of barrels, natural gas in millions of Mcf, coal in millions of short tons.

SOURCE: U.S. Geological Survey and the Minerals Management Service, Department of the Interior.

Table 3.--Summary of royalty revenues other than rents and bonuses collected from Federal and Indian mineral leases in the United States, 1920-90

1989			1990			1920-90			
Volume	Value	Royalties	Volume	Value	Royalties	Volume	Value	Royalties	
									Oil Production
438	$ 7,392	$1,082	470	$ 9,908	$1,454	16,740	$170,709	$25,703	Federal Lands
15	270	41	15	330	52	1,299	8,648	1,232	Indian Lands
453	$ 7,662	$1,123	485	$10,238	$1,506	18,039	$179,357	$26,935	Subtotal
									Gas Production
5,097	$ 9,261	$1,477	6,294	$11,320	$1,765	127,350	$159,294	$24,982	Federal Lands
114	191	25	127	220	30	4,138	3,679	485	Indian Lands
5,211	$ 9,452	$1,502	6,421	$11,540	$1,795	131,488	$162,973	$25,467	Subtotal
									Coal Production
209	$ 2,701	$ 195	253	$ 2,798	$ 236	2,228	$ 25,768	$ 1,321	Federal Lands
27	499	48	28	532	61	456	5,284	325	Indian Lands
236	$ 3,200	$ 243	281	$ 3,330	$ 297	2,684	$ 31,052	$ 1,646	Subtotal
									Other Production
N/A	$ 1,534	$ 102	N/A	$ 1,960	$ 137	N/A	$ 21,733	$ 1,355	Federal Lands
N/A	79	9	N/A	74	9	N/A	2,084	228	Indian Lands
N/A	$ 1,613	$ 111	N/A	$ 2,034	$ 146	N/A	$ 23,817	$ 1,583	Subtotal
	$21,927	**$2,979**		**$27,142**	**$3,744**		**$397,199**	**$55,631**	**Total**

Table 4.--1990 volume, sales value, and royalties for selected minerals from OCS, Federal onshore, and Indian mineral leases

	Production Volume	Sales Value	Royalties Received
Fluid Minerals			
Carbon Dioxide..................	244,911,932	$ 216,777,894	$ 13,970,449
Gas............................	6,421,329,680	11,539,292,536	1,794,605,594
Gas Lost.......................	207,218	154,487	34,855
Gas Plant Products.............	1,939,689,096	597,190,582	67,838,982
Geothermal.....................	31,423,876	145,138,000	14,582,541
Hot Water......................	2,392,455	24,832,545	2,459,797
Oil............................	485,679,172	10,238,740,533	1,505,803,452
Oil Lost.......................	974	15,254	1,920
Salt...........................	302,246	54,404	9,086
Sulfur.........................	1,040,910	105,015,086	5,097,322
Total......................		**$22,867,211,321**	**$3,404,403,998**
Solid Minerals			
Coal...........................	280,555,712	$ 3,329,228,862	$ 296,858,507
Copper.........................	93,651	52,504,374	4,046,888
Lead...........................	280,823	146,498,457	4,687,289
Limestone......................	207,356	841,373	29,417
Phosphate......................	5,835,241	85,007,005	5,228,048
Potash.........................	2,093,271	163,663,592	3,528,856
Sand-Gravel....................	7,859,658	33,066,534	3,774,180
Sodium.........................	4,736,360	372,148,844	18,450,761
Zinc...........................	60,422	36,503,735	1,298,791
Total......................		**$ 4,219,462,776**	**$ 337,902,737**

Table 5.--1990 volume, sales value, and royalties for selected minerals from OCS mineral leases

	Production Volume	Sales Value	Royalties Received
Fluid Minerals			
Gas	5,092,931,169	$ 9,458,313,225	$1,539,364,756
Gas Lost	251,589	419,753	67,168
Gas Plant Products	1,201,200,710	385,050,216	49,806,815
Oil	324,423,181	6,980,537,688	1,090,953,312
Salt	302,246	54,404	9,086
Sulfur	734,449	91,967,724	4,598,386
Total		**$16,916,343,010**	**$2,684,799,523**

Floating production vessel under tow to offshore drilling site. (Photo courtesy Sun Company, Inc.)

Table 6.--1990 volume, sales value, and royalties for selected minerals from Federal onshore mineral leases

	Production Volume	Sales Value	Royalties Received
Fluid Minerals			
Carbon Dioxide..................	244,911,932	$ 216,777,894	$ 13,970,449
Gas.............................	1,201,458,760	1,861,252,013	225,489,863
Gas Lost........................	(18,834)	(221,143)	(27,247)
Gas Plant Products..............	714,321,409	203,713,063	17,131,385
Geothermal......................	31,423,876	145,138,000	14,582,541
Hot Water.......................	2,392,455	24,832,545	2,459,797
Oil.............................	145,938,345	2,927,745,376	362,642,855
Oil Lost........................	453	8,336	1,042
Sulfur..........................	306,461	13,047,362	498,936
Total.......................		**$5,392,293,446**	**$636,749,621**
Solid Minerals			
Coal............................	253,029,394	$2,797,596,475	$236,067,011
Copper..........................	44,797	28,454,866	929,859
Lead............................	280,823	146,498,457	4,687,289
Limestone.......................	62,763	270,231	13,512
Phosphate.......................	4,721,515	68,567,624	3,463,080
Potash..........................	2,093,271	163,663,592	3,528,856
Sand-Gravel.....................	2,059,556	9,493,026	438,920
Sodium..........................	4,736,360	372,148,844	18,450,761
Zinc............................	60,422	36,503,735	1,298,791
Total.......................		**$3,623,196,850**	**$268,878,079**

Table 7.--1990 volume, sales value, and royalties for selected minerals from Indian mineral leases

	Production Volume	Sales Value	Royalties Received
Fluid Minerals			
Gas	126,939,751	$219,727,298	$29,750,975
Gas Lost	(25,537)	(44,123)	(5,066)
Gas Plant Products	24,166,977	8,427,303	900,782
Oil	15,317,646	330,457,469	52,207,285
Oil Lost	521	6,918	878
Total		**$558,574,865**	**$82,854,854**
Solid Minerals			
Coal	27,526,318	$531,632,387	$60,791,496
Copper	48,854	24,049,508	3,117,029
Limestone	144,593	571,142	15,905
Phosphate	1,113,726	16,439,381	1,764,968
Sand-Gravel	5,800,102	23,573,508	3,335,260
Total		**$596,265,926**	**$69,024,658**

Table 8.--Summary of volume, sales value, and royalties for selected minerals from OCS, Federal onshore, and Indian mineral leases, 1920-90

	1920-80	1981	1982	1983	1984	1985
Fluid Minerals						
Carbon Dioxide						
Volume	9,651,490	838,024	715,339	629,500	54,699,015	148,805,107
Sales Value	$ 1,794,176	$ 260,996	$ 158,234	$ 139,200	$ 42,524,146	$ 109,015,401
Royalties	$ 179,181	$ 29,822	$ 17,820	$ 15,700	$ 5,155,334	$ 13,083,379
Gas						
Volume	76,249,099,004	6,052,083,123	5,973,752,376	5,127,678,564	5,750,727,501	5,096,870,952
Sales Value	$38,184,351,096	$12,958,088,760	$15,576,292,414	$14,400,916,801	$16,057,263,410	$14,334,958,778
Royalties	$ 5,859,052,700	$ 2,023,574,405	$ 2,478,401,586	$ 2,211,846,565	$ 2,499,727,065	$ 2,270,108,369
Gas Lost						
Volume	157,974,309	5,174,043	(598,812)	58,800	(9,239,073)	(8,070,071)
Sales Value	$ 105,803,830	$ 6,365,866	$ (161,531)	$ 132,800	$ (10,297,183)	$ (3,629,633)
Royalties	$ 15,610,287	$ 723,710	$ (12,292)	$ 16,600	$ (1,639,511)	$ (435,036)
Gas Plant Products						
Volume	32,240,491,293	299,564,228	378,306,977	339,899,000	825,317,001	853,729,018
Sales Value	$ 2,770,472,178	$ 177,006,213	$ 277,446,626	$ 248,511,000	$ 285,822,760	$ 315,775,352
Royalties	$ 183,966,218	$ 9,196,002	$ 12,555,177	$ 11,741,500	$ 61,708,638	$ 45,021,390
Geothermal						
Volume	1,139,569	1,971,710	2,056,999	2,095,458	8,865,201	15,153,580
Sales Value	$ 6,032,991	$ 12,421,774	$ 15,830,455	$ 21,990,642	$ 77,570,506	$ 105,447,371
Royalties	$ 754,124	$ 1,552,722	$ 1,978,197	$ 2,747,373	$ 9,959,824	$ 13,396,664
Hot Water						
Volume	3,701	11,470	6,752	26,023	347,250	107,576
Sales Value	$ 26,175	$ 84,345	$ 58,401	$ 240,975	$ 2,603,058	$ 791,000
Royalties	$ 2,618	$ 8,435	$ 5,840	$ 24,098	$ 324,017	$ 79,100
Oil						
Volume	12,919,242,572	467,287,007	490,634,147	519,871,165	544,379,783	579,725,595
Sales Value	$60,439,258,589	$15,284,878,704	$15,037,499,952	$14,978,914,988	$15,500,070,605	$15,258,905,645
Royalties	$ 9,045,160,094	$ 2,284,018,913	$ 2,357,378,042	$ 2,253,147,859	$ 2,418,467,481	$ 2,274,578,781
Oil Lost						
Volume	193,413	18,938	553	299	8	(4,385)
Sales Value	$ 1,680,906	$ 539,283	$ 1,614	$ 9,367	$ 2,666	$ (14,772)
Royalties	$ 202,630	$ 68,453	$ 228	$ 1,171	$ (30)	$ (1,839)
Salt						
Volume	4,751,619	14,060	---	---	---	---
Sales Value	$ 773,882	$ 720,830	---	---	---	---
Royalties	$ 129,546	$ 105,604	---	---	---	---
Sulfur						
Volume	17,657,279	569,457	337,080	62,800	461,895	1,010,612
Sales Value	$ 408,915,060	$ 913,332	$ 1,052,317	$ 925,800	$ 5,656,312	$ 14,626,459
Royalties	$ 45,901,173	$ 36,526	$ 51,791	$ 45,500	$ 158,702	$ 1,306,271

Table 8.--Summary of volume, sales value, and royalties for selected minerals from OCS, Federal onshore, and Indian mineral leases, 1920-90

1986	1987	1988	1989	1990	1920-90	
			Fluid Minerals			
						Carbon Dioxide
214,765,631	214,300,882	192,344,887	212,922,740	244,911,932	1,294,584,547	Volume
$ 106,642,761	$ 101,441,167	$ 120,080,713	$ 163,780,626	$ 216,777,894	$ 862,615,314	Sales Value
$ 12,782,485	$ 11,867,100	$ 9,990,923	$ 10,642,228	$ 13,970,449	$ 77,734,421	Royalties
						Gas
4,868,457,833	5,420,807,591	5,314,847,233	5,211,457,103	6,421,329,680	131,487,110,960	Volume
$11,109,833,239	$9,792,949,595	$9,566,702,680	$9,451,719,098	$11,539,292,536	$162,972,368,407	Sales Value
$ 1,770,203,994	$1,543,943,300	$1,514,838,178	$1,501,241,907	$ 1,794,605,594	$ 25,467,543,663	Royalties
						Gas Lost
1,042,854	694,750	837,156	(7,167,586)	207,218	140,913,588	Volume
$ 1,781,107	$ 1,069,593	$ 2,493,717	$ (5,352,821)	$ 154,487	$ 98,360,232	Sales Value
$ 224,402	$ 139,378	$ 312,152	$ (866,532)	$ 34,855	$ 14,108,013	Royalties
						Gas Plant Products
748,767,577	746,792,193	1,309,355,908	1,660,604,151	1,939,689,096	41,342,516,442	Volume
$ 267,596,991	$ 181,794,667	$ 314,169,527	$ 388,240,864	$ 597,190,582	$ 5,824,026,760	Sales Value
$ 38,649,138	$ 24,998,693	$ 33,955,668	$ 43,371,852	$ 67,838,982	$ 533,003,258	Royalties
						Geothermal
24,156,727	10,241,553	11,786,273	12,865,596	31,423,876	121,756,542	Volume
$ 141,316,855	$ 114,133,038	$ 100,136,451	$ 110,901,439	$ 145,138,000	$ 850,919,522	Sales Value
$ 17,279,937	$ 14,134,967	$ 12,265,355	$ 13,078,493	$ 14,582,541	$ 101,730,197	Royalties
						Hot Water
160,136	134,387	1,228,492	1,642,626	2,392,455	6,060,868	Volume
$ 1,020,069	$ 1,854,757	$ 9,986,139	$ 15,342,181	$ 24,832,545	$ 56,839,645	Sales Value
$ 102,007	$ 185,476	$ 980,688	$ 1,532,938	$ 2,459,797	$ 5,705,014	Royalties
						Oil
566,491,399	535,109,032	476,533,156	453,345,362	485,679,172	18,038,298,390	Volume
$ 8,951,765,603	$9,056,246,525	$6,949,033,549	$7,661,624,711	$10,238,740,533	$179,356,939,404	Sales Value
$ 1,326,147,636	$1,334,157,035	$1,014,397,940	$1,122,484,033	$ 1,505,803,452	$ 26,935,741,266	Royalties
						Oil Lost
1,086	516	442	29	974	211,873	Volume
$ 16,813	$ 7,850	$ 5,344	$ 689	$ 15,254	$ 2,265,014	Sales Value
$ 2,139	$ 970	$ 541	$ 86	$ 1,920	$ 276,269	Royalties
						Salt
---	---	44	1,059	302,246	5,069,028	Volume
---	---	$ 2,619	$ 63,556	$ 54,404	$ 1,615,291	Sales Value
---	---	$ 437	$ 10,614	$ 9,086	$ 255,287	Royalties
						Sulfur
1,348,897	52,085	(4,309)	411,337	1,040,910	22,948,043	Volume
$ 12,464,740	$ (14,093,048)	$ 415,005	$ 31,208,988	$ 105,015,086	$ 567,100,051	Sales Value
$ 871,135	$ (796,497)	$ (120,177)	$ 3,414,258	$ 5,097,322	$ 55,966,004	Royalties

Table 8.--Summary of volume, sales value, and royalties for selected minerals from OCS, Federal onshore, and Indian mineral leases, 1920-90 (cont.)

	1920-80	1981	1982	1983	1984	1985
			Solid Minerals			
Coal						
Volume	842,180,693	138,785,714	130,024,306	124,306,564	136,341,770	184,591,422
Sales Value	$ 5,652,942,377	$ 1,735,655,964	$ 1,929,574,312	$ 1,838,271,270	$ 1,666,764,499	$ 2,772,300,913
Royalties	$ 180,460,201	$ 51,613,582	$ 70,426,252	$ 61,747,233	$ 76,973,461	$ 126,876,373
Copper						
Volume	338,274	16,659	15,440	11,135	181,782	12,701
Sales Value	$ 167,058,668	$ 9,929,818	$ 2,911,357	$ 2,099,703	$ 21,721,106	$ 4,102,338
Royalties	$ 12,365,942	$ 797,881	$ 170,180	$ 104,985	$ 1,453,057	$ 189,691
Fluorspar						
Volume	313,663	8,760	---	---	4,074	7,718
Sales Value	$ 19,110,686	$ 1,567,684	---	---	$ 455,099	$ 1,322,684
Royalties	$ 761,599	$ 70,546	---	---	$ 20,691	$ 61,324
Lead						
Volume	10,278,990	306,238	378,841	493,943	230,591	323,605
Sales Value	$ 1,543,605,932	$ 116,295,243	$ 70,606,450	$ 59,101,000	$ 72,344,373	$ 74,075,759
Royalties	$ 79,868,670	$ 5,814,762	$ 3,530,322	$ 2,951,458	$ 2,513,054	$ 1,523,169
Limestone						
Volume	3,465,176	7,416	104,575	43,445	3,184	11,421
Sales Value	$ 4,516,236	$ 54,553	$ 778,614	$ 360,377	$ 4,138	$ 54,592
Royalties	$ 267,254	$ 1,503	$ 19,155	$ 9,009	$ 104	$ 1,458
Phosphate						
Volume	107,255,858	5,984,660	1,539,106	1,802,969	8,750,471	6,190,620
Sales Value	$ 486,198,002	$ 61,304,799	$ 18,290,072	$ 21,677,590	$ 106,556,739	$ 78,457,218
Royalties	$ 32,230,645	$ 4,261,733	$ 914,524	$ 1,086,961	$ 5,330,194	$ 4,247,010
Potash						
Volume	121,780,763	3,499,032	3,295,470	3,094,286	2,336,184	2,266,699
Sales Value	$ 3,118,402,476	$ 236,139,605	$ 219,365,268	$ 195,411,233	$ 111,623,050	$ 126,715,618
Royalties	$ 129,096,015	$ 8,462,567	$ 7,679,474	$ 6,607,154	$ 1,611,564	$ 4,273,417
Sand-Gravel						
Volume	136,910,446	1,828,798	2,602,540	3,467,551	1,210,176	5,640,212
Sales Value	$ 140,513,086	$ 4,819,798	$ 4,665,463	$ 4,683,622	$ 3,100,572	$ 15,775,682
Royalties	$ 10,782,587	$ 429,136	$ 732,264	$ 1,045,783	$ 295,132	$ 2,068,160
Sodium						
Volume	58,321,555	3,266,035	4,320,396	4,209,628	3,973,603	5,944,556
Sales Value	$ 2,039,411,127	$ 271,352,449	$ 274,221,927	$ 207,935,306	$ 190,985,635	$ 214,879,657
Royalties	$ 90,117,327	$ 13,527,243	$ 13,665,634	$ 9,850,697	$ 7,758,215	$ 10,521,149
Uranium						
Volume	30,389,331	2,665,855	818,147	460,866	695,290	507,059
Sales Value	$ 598,345,094	$ 37,277,388	$ 42,910,213	$ 59,000,813	$ 60,441,312	$ 30,505,612
Royalties	$ 90,559,760	$ 8,883,878	$ (3,891,951)	$ 8,612,862	$ 5,787,961	$ 2,523,807
Zinc						
Volume	1,047,645	97,465	106,642	145,362	(8,803)	68,002
Sales Value	$ 196,886,395	$ 23,731,343	$ 19,641,165	$ 31,263,384	$ 9,599,369	$ 25,799,027
Royalties	$ 8,820,694	$ 1,186,026	$ 993,483	$ 1,560,541	$ 308,169	$ 823,328

Table 8.--Summary of volume, sales value, and royalties for selected minerals from OCS, Federal onshore, and Indian mineral leases, 1920-90 (cont.)

1986	1987	1988	1989	1990	1920-90	
			Solid Minerals			
						Coal
189,667,304	195,154,487	225,439,864	236,270,230	280,555,712	2,683,318,066	Volume
$ 2,893,166,820	$3,112,240,736	$2,920,469,084	$3,199,612,577	$ 3,329,228,862	$ 31,050,227,414	Sales Value
$ 137,897,597	$ 182,951,743	$ 219,487,512	$ 242,219,762	$ 296,858,507	$ 1,647,512,223	Royalties
						Copper
64,890	60,000	87,268	123,164	93,651	1,004,964	Volume
$ 17,622,021	$ 18,796,452	$ 45,303,771	$ 72,156,596	$ 52,504,374	$ 414,206,204	Sales Value
$ 1,072,705	$ 1,491,003	$ 2,953,522	$ 4,819,837	$ 4,046,888	$ 29,465,691	Royalties
						Fluorspar
4,414	---	809	---	---	339,438	Volume
$ 751,281	---	$ 134,745	---	---	$ 23,342,179	Sales Value
$ 36,813	---	$ 6,064	---	---	$ 957,037	Royalties
						Lead
289,231	252,975	298,405	306,909	280,823	13,440,551	Volume
$ 61,554,253	$ 114,564,421	$ 148,595,319	$ 155,744,356	$ 146,498,457	$ 2,562,985,563	Sales Value
$ 1,732,825	$ 3,353,230	$ 4,355,667	$ 4,537,409	$ 4,687,289	$ 114,867,855	Royalties
						Limestone
---	84,230	158,256	110,313	207,356	4,195,372	Volume
---	$ 449,030	$ 619,976	$ 408,105	$ 841,373	$ 8,086,994	Sales Value
---	$ 14,867	$ 21,409	$ 13,239	$ 29,417	$ 377,415	Royalties
						Phosphate
4,840,419	5,066,910	7,079,484	6,019,045	5,835,241	160,364,783	Volume
$ 58,528,739	$ 62,890,676	$ 67,683,409	$ 82,181,599	$ 85,007,005	$ 1,128,775,848	Sales Value
$ 4,355,222	$ 4,511,921	$ 5,589,819	$ 5,481,537	$ 5,228,048	$ 73,237,614	Royalties
						Potash
1,266,776	1,568,078	1,742,184	2,070,876	2,093,271	145,013,619	Volume
$ 67,341,113	$ 87,317,441	$ 137,599,474	$ 171,208,383	$ 163,663,592	$ 4,634,787,253	Sales Value
$ 1,810,638	$ 1,912,786	$ 2,998,652	$ 3,676,552	$ 3,528,856	$ 171,657,675	Royalties
						Sand-Gravel
4,329,264	6,744,893	8,411,233	9,226,981	7,859,658	188,231,752	Volume
$ 14,657,238	$ 22,643,646	$ 22,218,665	$ 33,777,456	$ 33,066,534	$ 299,921,762	Sales Value
$ 1,564,865	$ 2,398,634	$ 2,802,972	$ 3,455,490	$ 3,774,180	$ 29,349,203	Royalties
						Sodium
4,015,731	3,996,166	3,875,425	4,364,723	4,736,360	101,024,178	Volume
$ 254,289,111	$ 222,648,184	$ 266,972,036	$ 305,962,326	$ 372,148,844	$ 4,620,806,602	Sales Value
$ 12,712,953	$ 11,130,882	$ 13,434,654	$ 15,220,634	$ 18,450,761	$ 216,390,149	Royalties
						Uranium
144,708	64	---	144	---	35,681,464	Volume
$ 3,757,142	$ 3,647	---	$ 8,224	---	$ 832,249,445	Sales Value
$ 241,740	$ 456	---	$ 1,027	---	$ 112,719,540	Royalties
						Zinc
67,861	47,741	61,409	55,010	60,422	1,748,756	Volume
$ 15,184,324	$ 17,358,508	$ 29,169,699	$ 44,042,264	$ 36,503,735	$ 449,179,213	Sales Value
$ 538,860	$ 557,534	$ 1,073,243	$ 1,562,561	$ 1,298,791	$ 18,723,230	Royalties

Table 9.--Summary of selected 1990 mineral production from OCS, Federal onshore, and Indian mineral leases as a percentage of total U.S. production

	U.S. Total	OCS	Federal Onshore	Indian	Federal and Indian Total
Oil in Barrels					
Production Volume........	2,665	324	146	15	485
% U.S. Total............		12.1	5.5	0.6	18.2
Gas in Mcf					
Production Volume........	18,469	5,093	1,201	127	6,421
% U.S. Total............		27.6	6.5	0.7	34.8
Coal in Tons					
Production Volume........	1,029	---	253	28	281
% U.S. Total............		---	24.6	2.7	27.3
Lead in Tons					
Production Volume........	522	---	281	---	281
% U.S. Total............		---	53.8	---	53.8
Phosphate in Tons					
Production Volume........	51,084	---	4,722	1,114	5,836
% U.S. Total............		---	9.2	2.2	11.4
Potash in Tons					
Production Volume........	3,132	---	2,093	---	2,093
% U.S. Total............		---	66.8	---	66.8
Sodium in Tons					
Production Volume........	10,478	---	4,736	---	4,736
% U.S. Total............		---	45.2	---	45.2

NOTE: 1990 U.S. production data are estimated. Data by calendar year are rounded: oil, including crude oil and condensate, in millions of barrels; natural gas in millions of Mcf; coal, including anthracite, bituminous, and lignite, in millions of short tons; and lead, phosphate, potash, and sodium in thousands of short tons.

SOURCE: Mineral Commodity Summaries 1991, Bureau of Mines, and Monthly Energy Review, April 1991, Department of Energy, for U.S. totals; certain other data are estimated in part by the Minerals Management Service.

Table 10.--Summary of selected mineral production from OCS, Federal onshore, and Indian mineral leases as a percentage of total U.S. production, 1950-90

	Oil in Barrels		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-80	88,591	11,467	12.9
1981	3,129	467	14.9
1982	3,157	491	15.6
1983	3,171	520	16.4
1984	3,241	544	16.8
1985	3,274	580	17.7
1986	3,168	566	17.9
1987	3,047	535	17.6
1988	2,971	477	16.1
1989	2,779	453	16.3
1990	2,665	485	18.2
1950-90	119,193	16,585	13.9

	Gas in Mcf		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-80	485,084	74,198	15.3
1981	19,956	6,052	30.3
1982	18,520	5,974	32.3
1983	16,822	5,128	30.5
1984	18,230	5,751	31.5
1985	17,198	5,097	29.6
1986	16,791	4,868	29.0
1987	17,349	5,421	31.2
1988	17,841	5,315	29.8
1989	18,029	5,211	28.9
1990	18,469	6,421	34.8
1950-90	664,289	129,436	19.5

	Coal in Tons		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-80	14,866	649	4.4
1981	824	139	16.9
1982	838	130	15.5
1983	782	124	15.9
1984	896	136	15.2
1985	884	185	20.9
1986	890	190	21.3
1987	919	195	21.2
1988	950	225	23.7
1989	981	236	24.1
1990	1,029	281	27.3
1950-90	23,859	2,490	10.4

Table 10.--Summary of selected mineral production from OCS, Federal onshore, and Indian mineral leases as a percentage of total U.S. production, 1950-90 (cont.)

	Lead in Tons		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-80	11,591	6,620	57.1
1981	506	306	60.5
1982	584	379	64.9
1983	514	494	96.1
1984	369	231	62.6
1985	456	324	71.1
1986	375	289	77.1
1987	343	253	73.8
1988	424	298	70.3
1989	453	307	67.8
1990	522	281	53.8
1950-90	16,137	9,782	60.6

	Phosphate in Tons		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-80	879,556	96,874	11.0
1981	59,110	5,985	10.1
1982	41,241	1,539	3.7
1983	46,929	1,803	3.8
1984	54,230	8,750	16.1
1985	56,036	6,191	11.0
1986	44,445	4,840	10.9
1987	45,144	5,067	11.2
1988	50,033	7,079	14.1
1989	54,914	6,019	11.0
1990	51,084	5,836	11.4
1950-90	1,382,722	149,983	10.8

	Potash in Tons		Percentage
	Total U.S. Volume	Federal & Indian	of U.S. Total
1950-80	120,671	98,339	81.5
1981	4,174	3,499	83.8
1982	3,454	3,295	95.4
1983	3,094	3,094	100.0
1984	3,028	2,336	77.1
1985	2,509	2,267	90.4
1986	2,327	1,267	54.4
1987	2,443	1,568	64.2
1988	2,945	1,742	59.2
1989	3,088	2,071	67.1
1990	3,132	2,093	66.8
1950-90	150,865	121,571	80.6

Table 10.--Summary of selected mineral production from OCS, Federal onshore, and Indian mineral leases as a percentage of total U.S. production, 1950-90 (cont.)

	Sodium in Tons		Percentage of U.S. Total
	Total U.S. Volume	Federal & Indian	
1950-80	94,229	51,161	54.3
1981	8,889	3,266	36.7
1982	8,683	4,320	49.8
1983	8,890	4,210	47.4
1984	8,946	3,974	44.4
1985	8,900	5,945	66.8
1986	8,834	4,016	45.5
1987	9,273	3,996	43.1
1988	10,030	3,875	38.6
1989	10,290	4,365	42.4
1990	10,478	4,736	45.2
1950-90	187,442	93,864	50.1

NOTE: U.S. production data are estimated. Data by calendar year are rounded: oil, including crude oil and condensate, in millions of barrels; natural gas in millions of Mcf; coal, including anthracite, bituminous, and lignite, in millions of short tons; and lead, phosphate, potash, and sodium in thousands of short tons.

SOURCE: Mineral Commodity Summaries, Bureau of Mines, and Monthly Energy Review, Department of Energy, for U.S. totals; certain other data are estimated in part by the Minerals Management Service.

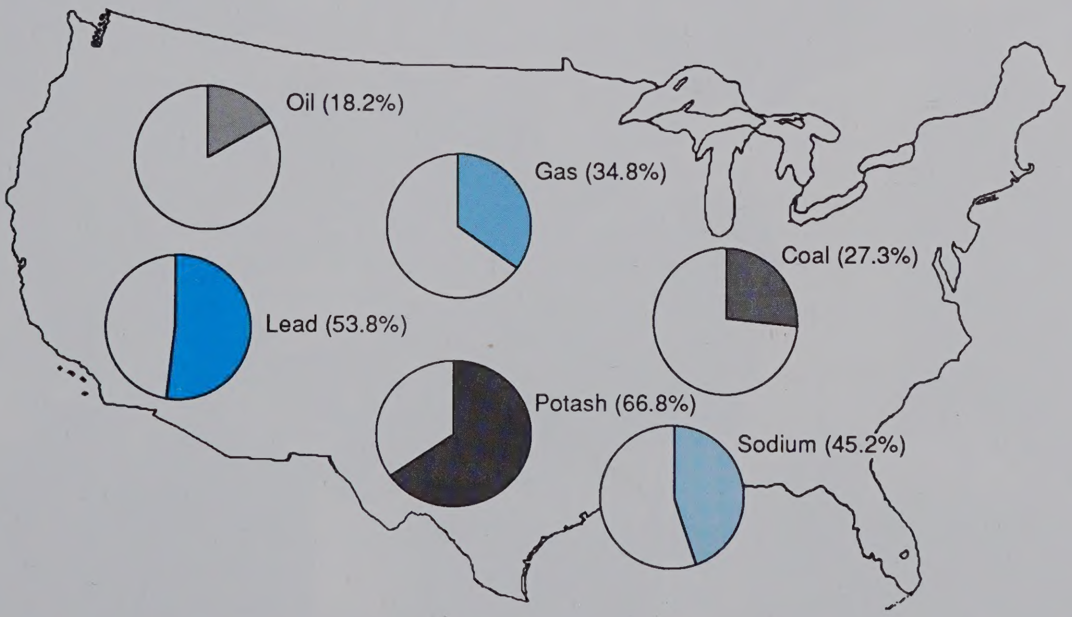


Figure 9. --- Federal and Indian mineral production as a percentage of total U.S. production, Calendar Year 1990

Offshore Federal Mineral Revenues

The $3.4 billion in royalties, rents, and bonuses from offshore oil and gas leases represented 73.9 percent of the $4.6 billion total revenues collected in 1990 (tables 1 and 2). Offshore oil production accounted for 72.4 percent of all oil royalties collected, while offshore gas production generated 85.8 percent of all gas royalties collected and disbursed by the Department of the Interior in 1990 (table 2).

Royalties from the Outer Continental Shelf (OCS) grew 23.5 percent, or nearly $514 million, from $2.2 billion in 1989 to $2.7 billion in 1990 (tables 1 and 2, and figure 11). Significant royalty increases were experienced in oil, gas, gas plant products, and sulfur. Rent revenues remained stable at $79 million in both years (figure 11 and table 16). Bonus revenues, in contrast, fell 9.5 percent, from a 1989 level of $645.6 million to $584.3 million in 1990 (figure 11 and table 18). The decrease is primarily the result of declining oil and gas price expectations, and a shift in offshore exploration activity to prospects outside the United States.

Oil production increased 6.3 percent, from 305.2 million barrels in 1989 to 324.4 million barrels in 1990. Oil royalties jumped 33.3 percent, or $272.4 million during the same period, reflecting the significant rise in oil prices in the last two quarters of 1990 (figure 10 and table 14).

Gas production rose 21.3 percent, from 4.2 billion Mcf in 1989 to 5.1 billion Mcf in 1990. Gas royalties increased a corresponding 18.4 percent, or $239.2 million during the same period (figure 10 and table 14). The bulk of the increase occurred off the coasts of Louisiana and Texas (table 13). Gas producing areas in Louisiana and southeastern Texas endured a severe cold snap during the last 2 weeks of December 1989. Extraction equipment in selected areas experienced problems with condensation and frost, reducing natural gas production. Underground storage withdrawals increased to meet higher demand and to compensate for the decline in production. Following the return of normal weather patterns in January 1990, operators significantly increased production to replenish underground storage supplies and to meet seasonal demand.

Revenues from other minerals on the OCS rose $21.9 million, or 67.1 percent, from $32.6 million in 1989 to $54.5 million in 1990. Gas plant product royalties increased 62.6 percent, from $30.6 million in 1989 to $49.8 million in 1990. Sulfur royalties rose 57.3 percent, or $1.7 million, over corresponding 1989 figures (tables 5 and 14, and figure 10).

Offshore royalty-in-kind oil procurement fell 10.6 percent from 1989 to 1990. The royalty value of the oil purchased, however, increased 24.2 percent, from $9.3 million in 1989 to $11.5 million in 1990, again due to the rise in oil prices in the last half of 1990 (table 31).

There were 6,163 offshore leases, licenses, and permits on 31.6 million acres under the supervision of the Department at the end of 1990 (tables 38 and 39). This included 1,717 producing or producible OCS oil and gas leases on 8 million acres (tables 32 and 33). The figures remain relatively stable with corresponding leases and acreage in 1989.

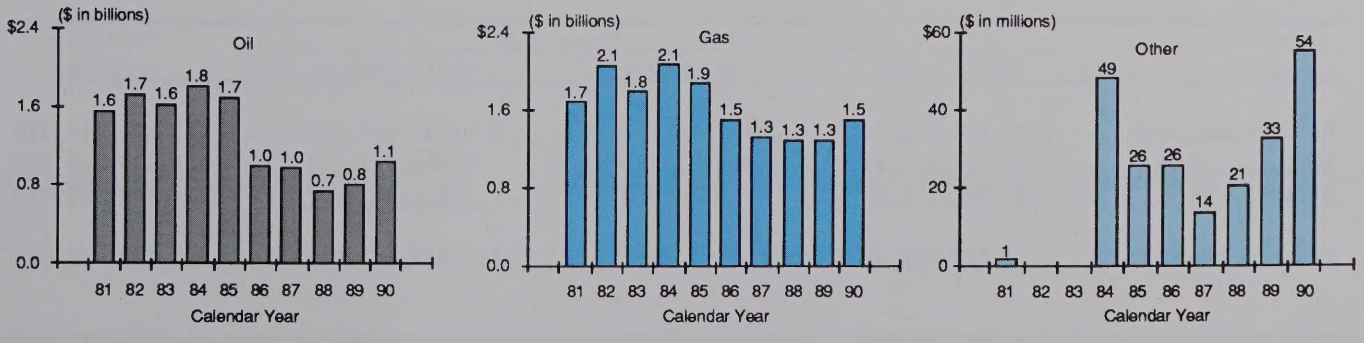


Figure 10. --- Royalties from OCS mineral leases, 1981-90

⇦ **Offshore production platform.**
(Photo courtesy Exxon Corporation.)

Table 11.--1990 volume, sales value, and royalties by area and commodity from OCS mineral leases

	Oil in Barrels/Gas in Mcf		Royalties
	Volume	Sales Value	Received
Offshore California			
Oil	33,312,719	$ 540,919,648	$ 94,552,896
Gas	38,531,764	107,345,547	17,822,908
Gas Lost	---	---	---
Gas Plant Products	2,873,474	1,211,010	103,490
Sulfur	---	---	---
Subtotal		$ 649,476,205	$ 112,479,294
Offshore Louisiana			
Oil	264,670,535	$ 5,853,558,285	$ 905,427,960
Gas	3,706,324,044	6,914,198,999	1,116,561,923
Gas Lost	251,589	419,753	67,168
Gas Plant Products	1,127,228,736	359,551,612	46,430,780
Oil Lost	---	---	---
Salt	302,246	54,404	9,086
Sulfur	734,449	91,967,724	4,598,386
Subtotal		$13,219,750,777	$2,073,095,303
Offshore Texas			
Oil	26,439,927	$ 586,059,755	$ 90,972,456
Gas	1,348,075,361	2,436,768,679	404,979,925
Gas Lost	---	---	---
Gas Plant Products	71,098,500	24,287,594	3,272,545
Oil Lost	---	---	---
Subtotal		$ 3,047,116,028	$ 499,224,926
Total		**$16,916,343,010**	**$2,684,799,523**

1990 summary of volume, sales value, and royalties by commodity from OCS mineral leases

	Production		Royalties
	Volume	Sales Value	Received
Oil	324,423,181	$ 6,980,537,688	$1,090,953,312
Gas	5,092,931,169	9,458,313,225	1,539,364,756
Other	N/A	477,492,097	54,481,455
Total		**$16,916,343,010**	**$2,684,799,523**

Table 12.--Summary of volume, sales value, and royalties by area and commodity from OCS mineral leases, 1953-90

	Oil in Barrels/Gas in Mcf		Royalties
	Volume	Sales Value	Received
Offshore California			
Oil	501,529,975	$ 6,056,551,184	$ 1,158,649,414
Gas	385,467,996	893,802,950	157,542,512
Gas Lost	4,291	1,383	269
Gas Plant Products	9,602,326	3,271,153	318,384
Sulfur	143	9,112	1,513
Subtotal		$ 6,953,635,782	$ 1,316,512,092
Offshore Louisiana			
Oil	8,087,997,576	$102,068,152,143	$16,520,771,862
Gas	79,513,705,849	102,041,597,997	16,606,637,281
Gas Lost	114,409,933	83,256,905	12,988,606
Gas Plant Products	19,041,822,143	2,904,381,361	319,770,494
Oil Lost	83,964	758,381	125,380
Salt	5,054,968	894,461	149,683
Sulfur	16,240,649	505,761,279	52,784,537
Subtotal		$207,604,802,527	$33,513,227,843
Offshore Texas			
Oil	254,652,132	$ 5,388,033,629	$ 855,187,386
Gas	12,845,484,973	26,717,896,267	4,508,944,410
Gas Lost	2,620,958	3,955,824	658,750
Gas Plant Products	714,632,710	111,631,465	14,323,902
Oil Lost	4,530	64,337	10,696
Subtotal		$ 32,221,581,522	$ 5,379,125,144
Total		**$246,780,019,831**	**$40,208,865,079**

Summary of volume, sales value, and royalties by commodity from OCS mineral leases, 1953-90

	Production		Royalties
	Volume	Sales Value	Received
Oil	8,844,179,683	$113,512,736,956	$18,534,608,662
Gas	92,744,658,818	129,653,297,214	21,273,124,203
Other	N/A	3,613,985,661	401,132,214
Total		**$246,780,019,831**	**$40,208,865,079**

Table 13.--Summary of volume, sales value, and royalties by area and year from OCS mineral leases, 1953-90

Offshore California	Oil in Barrels		Oil Royalties Received
	Volume	Sales Value	
1953-80	201,142,958	$ 862,032,346	$ 143,764,469
1981	19,605,027	477,803,916	86,004,705
1982	28,434,202	679,293,086	160,992,461
1983	30,527,487	717,395,945	165,001,067
1984	30,254,306	645,004,111	122,270,587
1985	29,781,465	628,442,977	123,056,974
1986	29,227,846	358,544,517	63,973,110
1987	33,556,686	423,213,631	75,690,692
1988	32,615,118	322,221,171	53,723,584
1989	33,072,161	401,679,836	69,618,869
1990	33,312,719	540,919,648	94,552,896
1953-90	501,529,975	$6,056,551,184	$1,158,649,414

	Gas in Mcf		Gas Royalties Received
	Volume	Sales Value	
1953-80	76,602,868	$ 25,266,818	$ 4,203,160
1981	12,766,307	13,919,105	2,158,289
1982	17,750,924	40,521,810	10,936,614
1983	16,024,292	45,508,989	11,832,337
1984	27,806,899	99,218,481	16,932,454
1985	49,164,213	151,241,817	25,676,251
1986	42,689,021	129,220,799	21,888,369
1987	40,986,158	111,589,318	18,085,583
1988	34,570,638	92,648,015	15,086,166
1989	28,574,912	77,322,251	12,920,381
1990	38,531,764	107,345,547	17,822,908
1953-90	385,467,996	$ 893,802,950	$ 157,542,512

	Other Production		Other Royalties Received
	Volume	Sales Value	
1953-80	N/A	$ 165,375	$ 11,253
1981	N/A	473,727	29,744
1982	N/A	---	---
1983	N/A	---	---
1984	N/A	546,832	99,800
1985	N/A	96,664	18,216
1986	N/A	---	---
1987	N/A	---	---
1988	N/A	108,824	9,447
1989	N/A	679,216	48,216
1990	N/A	1,211,010	103,490
1953-90	N/A	$ 3,281,648	$ 320,166

Table 13.--Summary of volume, sales value, and royalties by area and year from OCS mineral leases, 1953-90

Offshore Louisiana	Oil in Barrels		Oil Royalties Received
	Volume	Sales Value	
1953-80	5,180,670,451	$ 30,902,432,873	$ 5,173,195,377
1981	255,875,717	8,771,391,802	1,416,227,442
1982	275,513,489	8,914,054,253	1,485,972,842
1983	298,093,559	8,957,711,448	1,383,070,648
1984	318,024,622	9,539,401,648	1,597,398,742
1985	338,901,863	9,423,450,783	1,493,901,392
1986	340,152,276	5,740,306,865	899,889,359
1987	307,950,881	5,489,216,879	855,192,774
1988	261,936,530	4,086,676,490	632,688,293
1989	246,207,653	4,389,950,817	677,807,033
1990	264,670,535	5,853,558,285	905,427,960
1953-90	**8,087,997,576**	**$102,068,152,143**	**$16,520,771,862**

	Gas in Mcf		Gas Royalties Received
	Volume	Sales Value	
1953-80	45,816,232,603	$ 25,935,893,987	$ 4,199,379,312
1981	4,106,494,590	8,677,535,461	1,407,880,914
1982	3,803,740,050	10,079,911,140	1,680,321,200
1983	3,173,892,354	8,632,987,203	1,381,277,952
1984	3,578,740,570	9,656,366,956	1,551,459,784
1985	3,116,884,490	8,468,902,650	1,420,442,835
1986	2,927,832,264	6,605,111,673	1,081,739,674
1987	3,180,107,195	5,775,180,843	935,053,158
1988	3,096,881,628	5,705,494,358	919,994,644
1989	3,006,576,061	5,590,014,727	912,525,885
1990	3,706,324,044	6,914,198,999	1,116,561,923
1953-90	**79,513,705,849**	**$102,041,597,997**	**$16,606,637,281**

	Other Production		Other Royalties Received
	Volume	Sales Value	
1953-80	N/A	$ 1,909,687,473	$ 172,619,814
1981	N/A	8,124,178	1,162,929
1982	N/A	---	---
1983	N/A	---	---
1984	N/A	317,582,106	47,136,756
1985	N/A	163,480,919	26,175,510
1986	N/A	154,523,045	24,576,166
1987	N/A	88,715,367	12,962,808
1988	N/A	157,306,523	19,316,494
1989	N/A	243,639,283	30,762,803
1990	N/A	451,993,493	51,105,420
1953-90	**N/A**	**$ 3,495,052,387**	**$ 385,818,700**

Table 13.--Summary of volume, sales value, and royalties by area and year from OCS mineral leases, 1953-90 (cont.)

Offshore Texas	Oil in Barrels Volume	 Sales Value	Oil Royalties Received
1953-80	37,878,897	$ 364,140,107	$ 60,579,656
1981	14,284,661	438,571,199	73,084,362
1982	17,263,766	559,824,449	93,322,735
1983	19,710,197	592,291,420	91,449,795
1984	21,960,086	644,586,996	103,778,515
1985	20,640,957	569,787,128	90,226,533
1986	19,835,882	330,215,223	51,175,234
1987	24,634,142	432,622,928	68,390,025
1988	26,115,776	406,007,277	61,042,482
1989	25,887,841	463,927,147	71,165,593
1990	26,439,927	586,059,755	90,972,456
1953-90	254,652,132	$ 5,388,033,629	$ 855,187,386

	Gas in Mcf Volume	 Sales Value	Gas Royalties Received
1953-80	2,765,681,764	$ 2,792,207,829	$ 465,362,998
1981	730,275,831	1,811,533,970	301,923,690
1982	858,020,298	2,299,494,400	383,325,783
1983	850,817,211	2,594,992,494	421,686,280
1984	931,293,582	3,083,711,594	522,884,515
1985	834,926,523	2,749,103,504	459,478,794
1986	978,370,552	2,383,174,819	414,710,941
1987	1,204,488,337	2,247,918,432	384,622,693
1988	1,178,422,561	2,147,898,236	375,221,062
1989	1,165,112,953	2,171,092,310	374,747,729
1990	1,348,075,361	2,436,768,679	404,979,925
1953-90	12,845,484,973	$26,717,896,267	$4,508,944,410

	Other Production Volume	 Sales Value	Other Royalties Received
1953-80	N/A	$ 34,105,651	$ 3,399,705
1981	N/A	469,843	78,149
1982	N/A	---	---
1983	N/A	---	---
1984	N/A	15,027,399	2,219,520
1985	N/A	(1,009,400)	(163,129)
1986	N/A	10,064,620	1,707,770
1987	N/A	7,177,760	1,166,293
1988	N/A	11,151,041	1,519,441
1989	N/A	14,377,118	1,793,054
1990	N/A	24,287,594	3,272,545
1953-90	N/A	$ 115,651,626	$ 14,993,348

Table 14.--Summary of volume, sales value, and royalties by commodity and year from OCS mineral leases, 1953-90

	Production Volume		
	Oil (bbl)	Gas (Mcf)	Other
1953-80	5,419,692,306	48,658,517,235	N/A
1981	289,765,405	4,849,536,728	N/A
1982	321,211,457	4,679,511,272	N/A
1983	348,331,243	4,040,733,857	N/A
1984	370,239,014	4,537,841,051	N/A
1985	389,324,285	4,000,975,226	N/A
1986	389,216,004	3,948,891,837	N/A
1987	366,141,709	4,425,581,690	N/A
1988	320,667,424	4,309,874,827	N/A
1989	305,167,655	4,200,263,926	N/A
1990	324,423,181	5,092,931,169	N/A
1953-90	**8,844,179,683**	**92,744,658,818**	**N/A**

	Sales Value		
	Oil (bbl)	Gas (Mcf)	Other
1953-80	$ 32,128,605,326	$ 28,753,368,634	$1,943,958,499
1981	9,687,766,917	10,502,988,536	9,067,748
1982	10,153,171,788	12,419,927,350	---
1983	10,267,398,813	11,273,488,686	---
1984	10,828,992,755	12,839,297,031	333,156,337
1985	10,621,680,888	11,369,247,971	162,568,183
1986	6,429,066,605	9,117,507,291	164,587,665
1987	6,345,053,438	8,134,688,593	95,893,127
1988	4,814,904,938	7,946,040,609	168,566,388
1989	5,255,557,800	7,838,429,288	258,695,617
1990	6,980,537,688	9,458,313,225	477,492,097
1953-90	**$113,512,736,956**	**$129,653,297,214**	**$3,613,985,661**

	Royalties Received		
	Oil (bbl)	Gas (Mcf)	Other
1953-80	$ 5,377,539,502	$ 4,668,945,470	$ 176,030,772
1981	1,575,316,509	1,711,962,893	1,270,822
1982	1,740,288,038	2,074,583,597	---
1983	1,639,521,510	1,814,796,569	---
1984	1,823,447,844	2,091,276,753	49,456,076
1985	1,707,184,899	1,905,597,880	26,030,597
1986	1,015,037,703	1,518,338,984	26,283,936
1987	999,273,491	1,337,761,434	14,129,101
1988	747,454,359	1,310,301,872	20,845,382
1989	818,591,495	1,300,193,995	32,604,073
1990	1,090,953,312	1,539,364,756	54,481,455
1953-90	**$ 18,534,608,662**	**$ 21,273,124,203**	**$ 401,132,214**

Table 15.--Summary of minimum royalties by State or area from OCS mineral leases, 1957-90

	1957-80	1981	1982	1983	1984	1985
Alabama........	$ ---	$ ---	$ ---	$ ---	$ ---	$ 34,038
Alaska.........	---	---	---	12,516	39,934	112,088
Atlantic States.......	---	---	---	---	73,728	---
California.....	339,263	154,227	171,507	481,932	178,119	451,785
Louisiana......	28,848,450	1,211,959	1,349,850	2,540,294	2,010,462	2,139,530
Mississippi....	---	---	---	---	---	---
Texas..........	4,850,431	884,114	872,402	1,428,916	1,155,896	1,329,880
Total......	**$34,038,144**	**$2,250,300**	**$2,393,759**	**$4,463,658**	**$3,458,139**	**$4,067,321**

Table 15.--Summary of minimum royalties by State or area from OCS mineral leases, 1957-90

1986	1987	1988	1989	1990	1957-90	
$ 51,318	$ 101,859	$ 209,011	$ 191,949	$ 252,089	$ 840,264	**Alabama**
56,792	71,320	130,696	102,480	84,048	609,874	**Alaska**
---	---	---	---	---	73,728	**Atlantic States**
445,015	434,917	646,162	526,300	551,205	4,380,432	**California**
3,199,547	19,239,027	8,727,373	26,261,190	16,028,740	111,556,422	**Louisiana**
---	15,594	32,874	15,594	49,731	113,793	**Mississippi**
1,423,936	1,536,615	7,076,705	11,793,401	2,332,435	34,684,731	**Texas**
$5,176,608	**$21,399,332**	**$16,822,821**	**$38,890,914**	**$19,298,248**	**$152,259,244**	**Total**

Table 16.--Summary of rents by State or area from OCS mineral leases, 1953-90

	1953-80	1981	1982	1983	1984	1985
Alabama.....	$ 1,320,357	$ 154,602	$ 85,485	$ 85,485	$ 122,820	$ 340,409
Alaska......	11,268,203	1,722,966	1,965,516	4,248,241	4,601,574	11,603,554
Atlantic States....	12,906,288	4,474,698	4,167,276	4,406,382	3,889,152	2,359,296
California..	19,357,288	2,275,512	2,051,874	1,821,505	1,937,130	1,995,694
Florida.....	6,911,085	449,260	604,800	604,800	138,240	1,402,632
Louisiana...	155,858,863	8,205,515	7,288,316	13,620,158	16,323,567	33,756,447
Mississippi.	501,120	---	---	---	49,731	334,681
Oregon......	3,759,021	---	---	---	---	---
Texas.......	47,399,934	4,448,482	3,891,934	7,676,526	8,545,621	10,206,431
Washington..	1,399,080	---	---	---	---	---
Total...	$260,681,239	$21,731,035	$20,055,201	$32,463,097	$35,607,835	$61,999,144

Table 16.--Summary of rents by State or area from OCS mineral leases, 1953-90

1986	1987	1988	1989	1990	1953-90	
$ 450,034	$ 548,601	$ 130,884	$ 160,020	$ 155,469	$ 3,554,166	**Alabama**
7,561,960	7,677,314	16,915,379	18,708,334	15,255,133	101,528,174	**Alaska**
1,993,729	1,757,182	1,308,672	1,161,216	1,179,648	39,603,539	**Atlantic States**
1,862,983	1,848,659	1,130,759	1,104,568	901,733	36,287,705	**California**
138,240	---	1,972,047	(14,825)	88,527	12,294,806	**Florida**
34,110,029	52,115,828	35,752,757	48,498,402	55,568,777	461,098,659	**Louisiana**
103,257	138,240	17,280	51,840	69,120	1,265,269	**Mississippi**
---	---	---	---	---	3,759,021	**Oregon**
6,738,005	10,556,888	5,640,007	9,578,098	6,120,723	120,802,649	**Texas**
---	---	---	---	---	1,399,080	**Washington**
$52,958,237	**$74,642,712**	**$62,867,785**	**$79,247,653**	**$79,339,130**	**$781,593,068**	**Total**

Table 17.--1990 bonuses paid on lease sales of OCS oil & gas tracts by area

	Sale No.	Sale Date	Tracts Leased	Acres Leased	Bonuses Paid
Alaska........................	**No Leasing Activity**				
Atlantic......................	**No Leasing Activity**				
Gulf Of Mexico					
Central....................	123	03/21/90	525	2,604,259	$424,334,314
Western....................	125	08/22/90	300	1,659,187	159,967,604
Pacific.......................	**No Leasing Activity**				
		Total....	**825**	**4,263,446**	**$584,301,918**

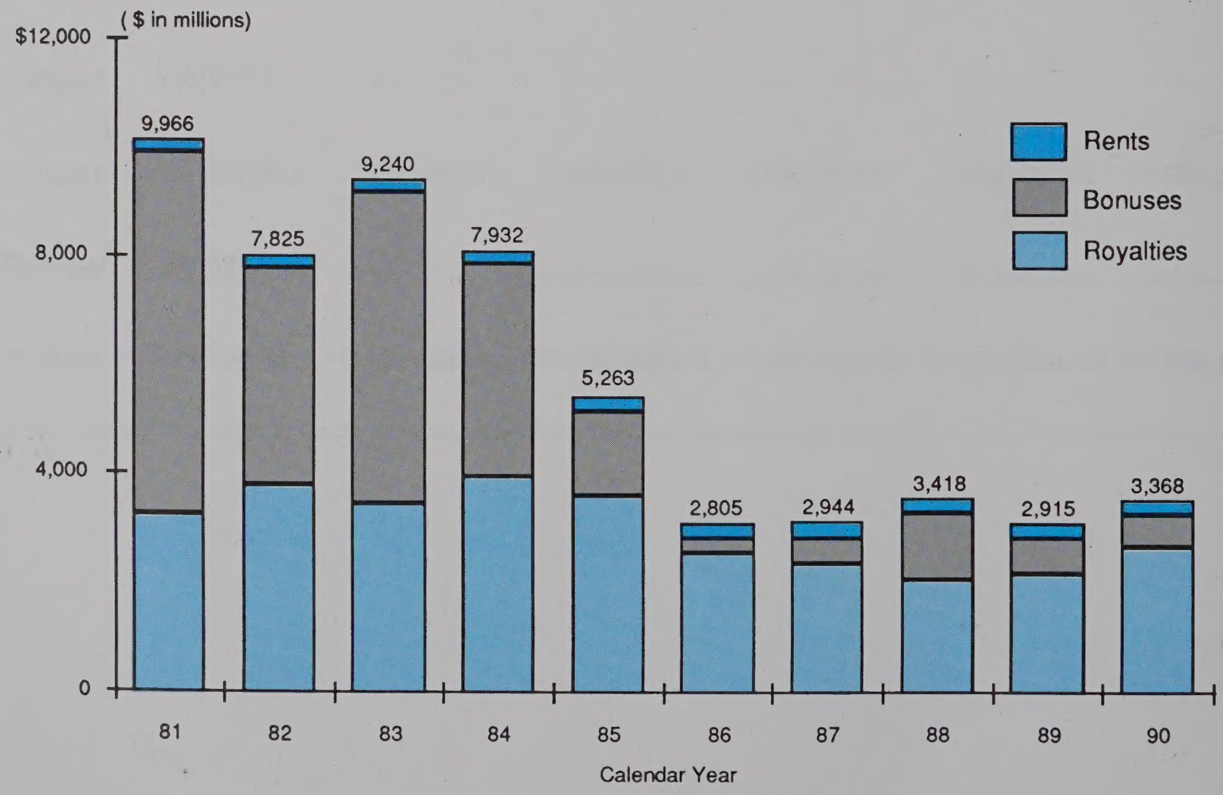


Figure 11. --- Revenues from OCS mineral leases by source, 1981-90

Table 18.--Summary of bonuses paid on lease sales of OCS oil & gas tracts, 1954-90

Year	No. of Sales	Tracts Leased	Acres Leased	Bonuses Paid
1954*..................................	3	114	486,870	$ 140,969,005
1955..................................	1	121	402,567	108,528,726
1959..................................	2	42	171,300	89,746,992
1960**..................................	2	148	707,026	282,717,065
1962..................................	3	420	1,929,177	489,481,061
1963..................................	1	57	312,945	12,807,337
1964..................................	2	124	613,524	95,874,327
1965*..................................	1	50	72,000	33,740,309
1966..................................	3	42	141,768	209,199,893
1967**..................................	2	159	746,951	510,109,742
1968..................................	3	197	934,164	1,346,487,097
1969*..................................	3	40	114,282	111,660,685
1970..................................	2	138	598,540	945,064,773
1971..................................	1	11	37,222	96,304,523
1972..................................	2	178	826,195	2,251,347,556
1973..................................	2	187	1,032,570	3,082,462,611
1974..................................	4	356	1,762,158	5,022,860,815
1975..................................	4	321	1,679,877	1,088,133,152
1976..................................	4	246	1,277,937	2,242,898,467
1977..................................	2	211	1,100,734	1,568,564,745
1978..................................	4	249	1,297,274	1,767,042,064
1979..................................	6	351	1,767,443	5,078,861,692
1980..................................	3	218	1,134,227	4,204,640,257
1981..................................	7	430	2,265,537	6,652,980,897
1982..................................	5	357	1,886,360	3,987,490,009
1983..................................	7	1,251	6,587,823	5,749,016,369
1984..................................	6	1,387	7,397,939	3,928,876,308
1985..................................	3	681	3,573,554	1,557,650,714
1986..................................	2	142	734,418	187,094,747
1987..................................	2	640	3,447,809	497,247,006
1988***..................................	7	1,621	8,838,943	1,259,548,738
1989..................................	2	1,049	5,580,867	645,646,870
1990..................................	2	825	4,263,446	584,301,918
Total..............................	**103**	**12,363**	**63,723,447**	**$55,829,356,470**

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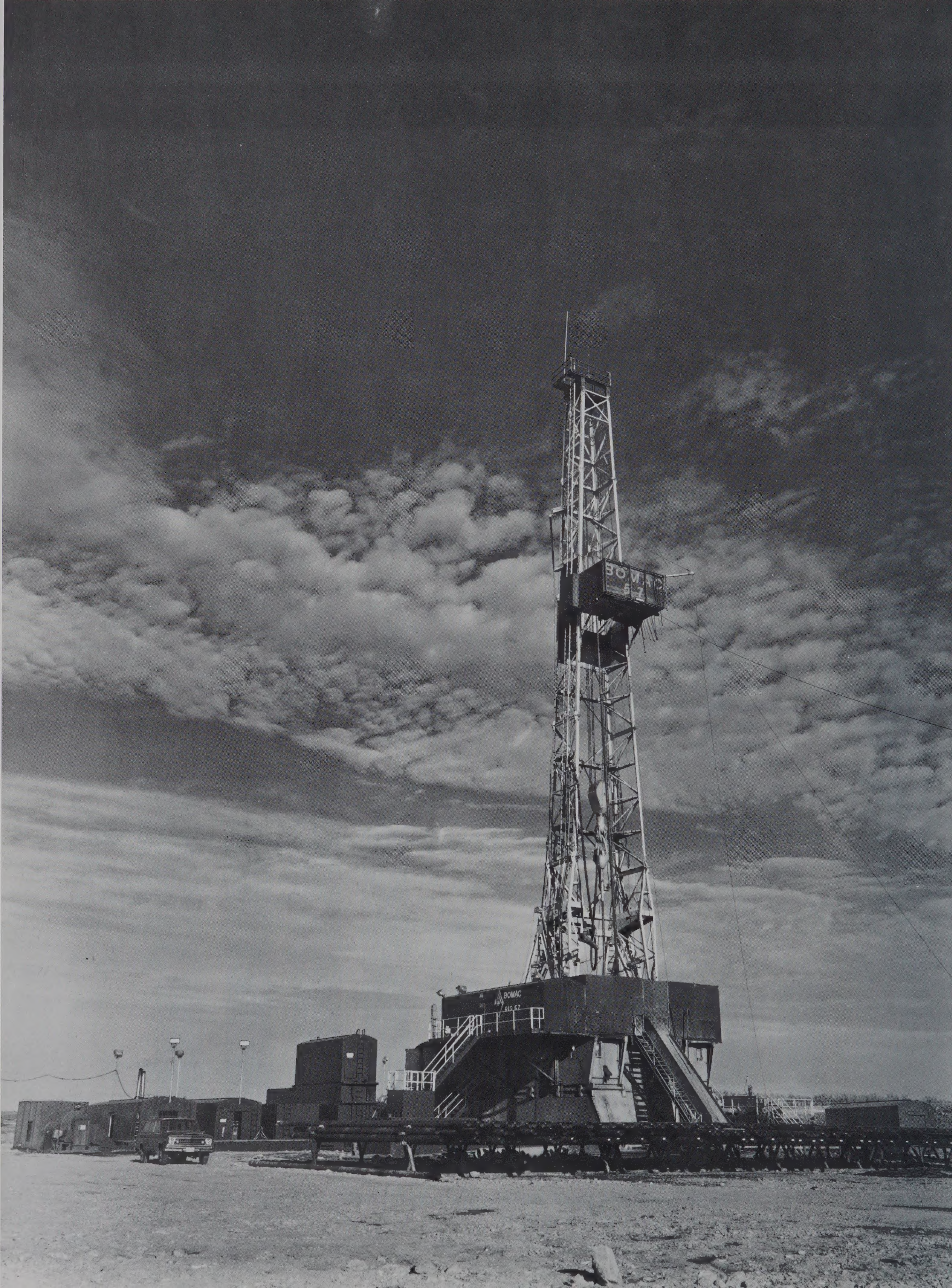
*Sales include one sulfur lease.

**Sales include one salt lease.

***Sales include one salt and sulfur lease.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Onshore Federal Mineral Revenues

Revenues from royalties, minimum royalties, rents, and bonuses from Federal onshore lands increased 18.3 percent, from $875.9 million in 1989 to over $1 billion in 1990. The growth is primarily attributed to an increase in oil, gas, and coal royalties. Royalties comprised 87.9 percent of the revenues derived from Federal onshore mineral leases during the year (tables 1 and 2, and figure 14).

Oil production on Federal lands rose 10 percent in 1990; however, royalty revenues jumped 37.9 percent, from $263.1 million in 1989 to $362.6 million in 1990 (figure 12 and table 19). The increase in royalties is associated with the rise in oil prices in the third and fourth quarters of 1990 as a result of the unrest in the Middle East. Wyoming produced nearly half the oil from Federal lands in 1990 (figure 15 and table 20).

Onshore gas production increased 34 percent, or 304.7 million Mcf, while gas royalties rose a corresponding 27.8 percent, from $176.4 million in 1989 to $225.5 million in 1990 (figure 12 and table 19). The growth in both production and royalties is associated with a period of unusually cold weather throughout the United States in December 1989. The demand for natural gas outpaced production, resulting in the depletion of many underground storage supplies and an attendant rise in prices. Suppliers increased production in the first quarter of 1990 to meet peak seasonal heating requirements and to replenish underground storage facilities. Prices fell back in the remaining three quarters of the year as the supply of natural gas caught up with demand. New Mexico and Wyoming produced over 75 percent of the gas from Federal onshore leases in 1990 (figure 16 and table 20).

The United States produced a record level of over 1 billion short tons of coal in 1990 (table 10). Coal production on Federal lands reached a record level of 253 million short tons, up 43.7 million short tons or 20.9 percent over corresponding figures in 1989. Coal royalties rose 21.3 percent, from $194.5 million in 1989 to $236.1 million in 1990 (figure 12 and table 19).

The principal reason for the growth was an increase in coal demand by electric utilities to build up coal stocks and to produce more coal-fired electricity. Test burns of low-sulfur western coal by eastern and midwestern utility companies further stimulated coal production on Federal lands. The tests are designed to assess the use of low-sulfur coal in place of plant modifications that may be required under the Clean Air Act. The U.S. Department of Energy advises that coal-consuming electric utilities produce most of the electric power generated in the United States and account for well over three quarters of total domestic coal consumption.

Wyoming produced nearly 70 percent of the coal mined on Federal lands in 1990 (figure 17). Wyoming coal production increased 19.7 percent over 1989 levels primarily due to higher electric utility coal requirements in Indiana and Georgia (table 19).

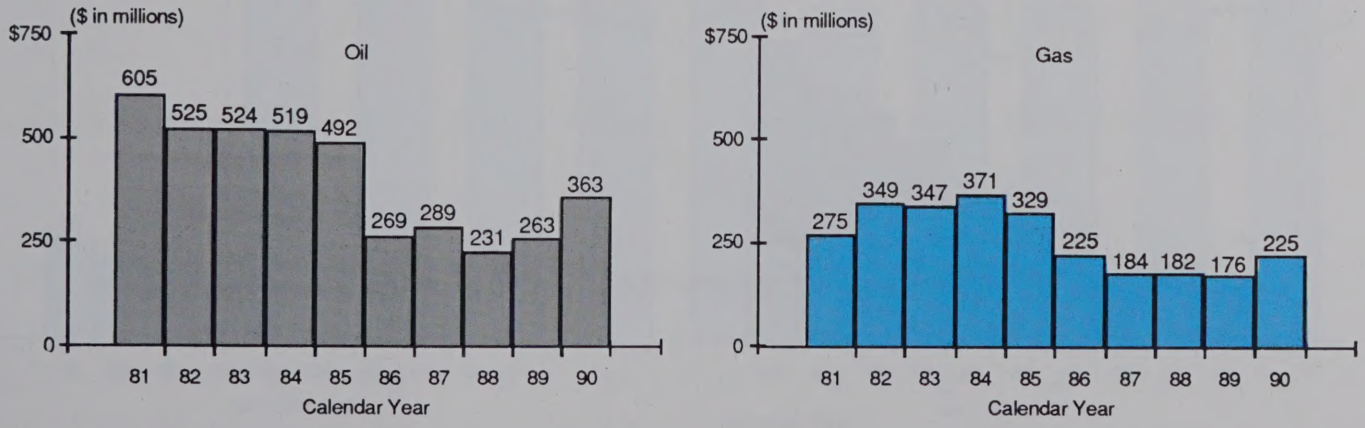


Figure 12. --- Royalties from Federal onshore mineral leases, 1981-90

Oil and gas drilling operation.
(Photo courtesy Texaco, Inc.)

Royalties from mineral resources other than oil, gas, and coal rose 19.5 percent, from $69.3 million in 1989 to $82.7 million in 1990 (figure 12 and table 19). There were significant increases in royalties from carbon dioxide, gas plant products, geothermal and hot water energy, iron ore, langbeinite, lead, phosphate, and sodium. This was offset, in part, by reductions in revenues from copper, gas lost, potash, and zinc. Carbon dioxide, gas plant products, geothermal energy, and sodium generated more than 80 percent of the royalties from other mineral commodities during the year (table 20).

Minimum royalty collections fell 73.1 percent, from $14.6 million in 1989 to $3.9 million in 1990. The most significant decline occurred in Wyoming. Minimum royalty collections in Wyoming included lump sum settlement payments from contract renegotiations during the period 1987-89. The absence of significant settlement payments in Wyoming in 1990 reduced the State's net minimum royalty receipts by nearly $10.6 million. New Mexico, in contrast, realized an additional $377,992 in minimum royalty collections during the year (table 21).

Rent receipts declined 3.9 percent, or $2.5 million, from 1989 to 1990. The majority of States experienced a moderate decline. Wyoming was the only State with a significant increase, gaining nearly $1.2 million over the corresponding 1989 rent figure (table 22).

Competitive mineral leasing for Federal onshore lands fell 21.1 percent, from 4,068 leases in 1989 to 3,209 leases in 1990. The number of competitive oil and gas leases issued declined from 4,055 leases in 1989 to 3,202 leases in 1990. Bonus revenues generated from oil and gas lease sales dropped 21.5 percent, from $62.8 million in 1989 to $49.4 million in 1990. Significant oil and gas bonus reductions were recorded in Arkansas, Kansas, Michigan, and Utah. Notable oil and gas bonus increases were observed in New Mexico and Oklahoma. Competitive coal leases issued in Alabama, Utah, and West Virginia produced $1.6 million in bonus revenues in 1990. A competitive phosphate lease in Idaho earned $123,600. Other competitive leases for asphalt in Oklahoma and geothermal in Nevada generated an additional $34,998 during the year (tables 23 and 24).

Onshore royalty-in-kind oil procurement fell 3.7 percent from 1989 to 1990. The royalty value of the oil purchased, however, increased 24.8 percent, from $95.2 million in 1989 to $118.8 million in 1990 due to the rise in oil prices in the last half of the year (table 31).

Mineral production in New Mexico and Wyoming continued to dominate onshore Federal lease activity (table 19). The two States collectively received 66.6 percent of the $452.2 million disbursed to 26 States during the year (figure 20 and table 27).

There were 81,037 Federal onshore leases, licenses, permits, and applications on 66.3 million acres under the supervision of the Department of the Interior on public and acquired lands at the end of 1990 (table 40). This included 18,898 producing or producible onshore oil and gas leases on 10.6 million acres (tables 32 and 33).

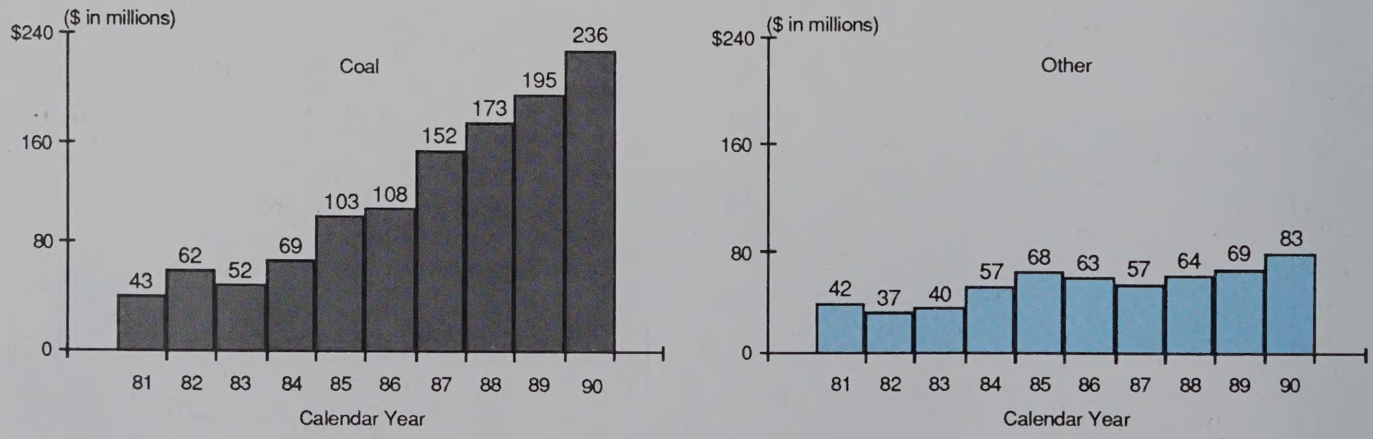


Figure 12. — Royalties from Federal onshore mineral leases, 1981-90 (cont.)

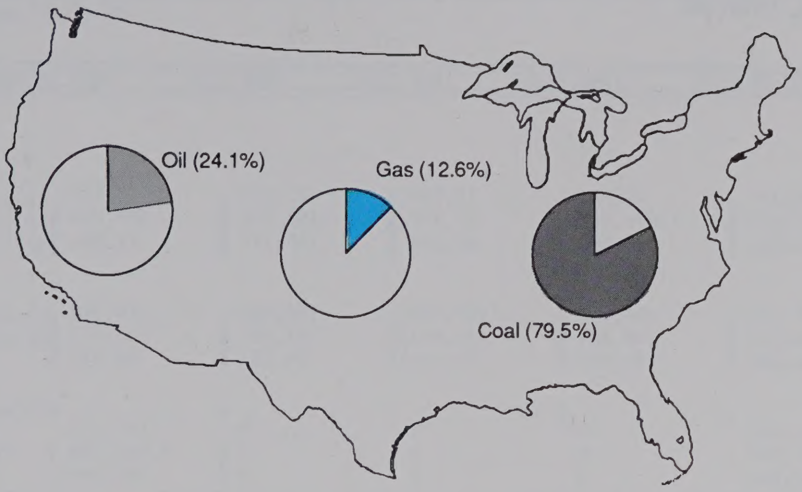


Figure 13. --- Federal onshore royalties as a percentage of total Federal and Indian royalties from oil, gas and coal, Calendar Year 1990

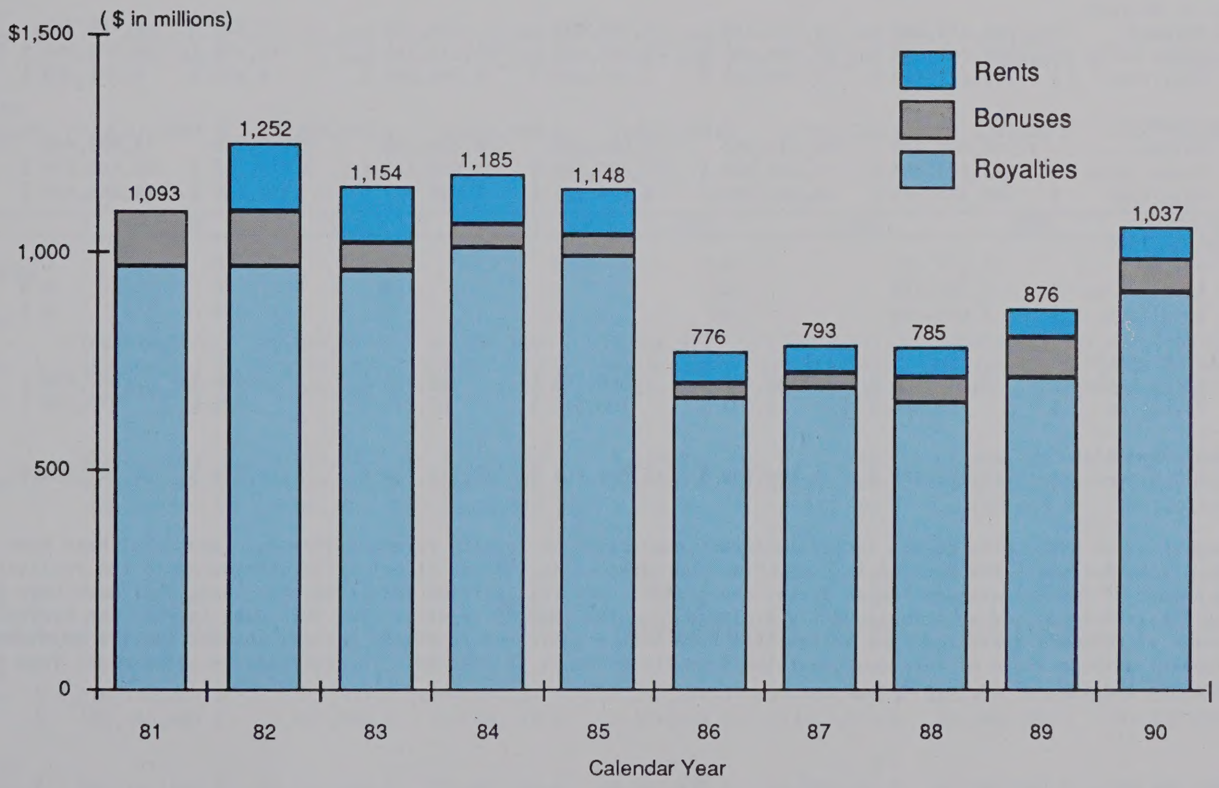


Figure 14. --- Revenues from Federal onshore mineral leases by source, 1981-90

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90

	1920-85	1986	1987	1988	1989	1990	1920-90
Alabama							
Oil in Barrels							
Volume	584,318	97,723	19,500	31,535	18,671	14,445	766,192
Sales Value	$ 4,219,565	$ 1,697,511	$ 51,490	$ 484,215	$ 323,274	$ 300,285	$ 7,076,340
Royalties	$ 529,540	$ 160,195	$ 89,868	$ 106,374	$ 71,091	$ 53,703	$ 1,010,771
Gas in Mcf							
Volume	574,751	284,485	(32,355)	124,892	116,542	140,038	1,208,353
Sales Value	$ 1,848,757	$ 536,224	$ (41,043)	$ 197,627	$ 215,674	$ 300,276	$ 3,057,515
Royalties	$ 231,302	$ 46,416	$ (4,971)	$ 24,737	$ 26,047	$ 37,519	$ 361,050
Coal in Tons							
Volume	1,815,993	0	0	0	147,473	556,776	2,520,242
Sales Value	$ 12,156,630	0	0	0	$ 5,649,348	$ 22,159,423	$ 39,965,401
Royalties	$ 542,509	0	0	0	$ 395,580	$ 1,549,602	$ 2,487,691
Other Products							
Sales Value	$ 194,994	$ 12,129	$ 657	$ 699	$ 13,397	$ 30,301	$ 252,177
Royalties	$ 17,140	$ 2,534	$ 260	$ 279	$ 1,549	$ 3,698	$ 25,460
Total Royalties							
All Minerals	**$ 1,320,491**	**$ 209,145**	**$ 85,157**	**$ 131,390**	**$ 494,267**	**$ 1,644,522**	**$ 3,884,972**

	1920-85	1986	1987	1988	1989	1990	1920-90
Alaska*							
Oil in Barrels							
Volume	204,675,580	1,531,448	1,375,912	739,102	2,854	2,458,247	210,783,143
Sales Value	$ 1,083,701,435	$ 21,920,806	$ 22,087,643	$ 10,972,761	$ 47,972	$ 42,835,005	$ 1,181,565,622
Royalties	$ 131,025,442	$ 2,720,962	$ 2,737,168	$ 1,359,683	$ 6,001	$ 5,311,023	$ 143,160,279
Gas in Mcf							
Volume	1,243,890,279	50,137,932	47,085,856	28,776,378	4,356,306	79,892,445	1,454,139,196
Sales Value	$ 668,230,368	$ 77,629,588	$ 57,790,567	$ 35,970,473	$ 3,877,112	$ 103,513,379	$ 947,011,487
Royalties	$ 83,153,573	$ 10,901,543	$ 8,224,121	$ 4,496,309	$ 550,550	$ 14,665,633	$ 121,991,729
Coal in Tons							
Volume	18,376,127	0	0	0	0	0	18,376,127
Sales Value	$ 131,760,234	0	0	0	0	0	$ 131,760,234
Royalties	$ 2,075,108	0	0	0	0	0	$ 2,075,108
Other Products							
Sales Value	$ 7,970,481	$ 592,698	$ 868,799	$ 460,133	$ 4,479	$ 2,867,656	$ 12,764,246
Royalties	$ 982,856	$ 74,087	$ 108,515	$ 57,234	$ 421	$ 270,798	$ 1,493,911
Total Royalties							
All Minerals	**$ 217,236,979**	**$ 13,696,592**	**$ 11,069,804**	**$ 5,913,226**	**$ 556,972**	**$ 20,247,454**	**$ 268,721,027**

*Beginning in 1984, data do not include minerals production or royalty revenues from any lands that have been transferred to Alaska Natives. The decline in production and revenues in 1988-89 is primarily attributed to the reclassification of a number of Federal onshore leases during the period. The reclassified leases involve lands that have been transferred to Alaska Natives and were subsequently excluded from the 1988-89 reports. The 1990 data include the Federal onshore share of revenues generated from leases that have been transferred to Alaska Natives and retroactive adjustments for the Federal onshore share of revenues generated from those leases in 1988-89. The retroactive adjustments from 1988-89 include $12,119,757 in royalties.

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90

	1920-85	1986	1987	1988	1989	1990	1920-90
Arizona							
Gas in Mcf							
Volume	124,822	0	0	0	0	0	124,822
Sales Value	$ 62,572	0	0	0	0	0	$ 62,572
Royalties	$ 37,551	0	0	0	0	0	$ 37,551
Other Products							
Sales Value	$ 8,004,634	0	0	0	0	0	$ 8,004,634
Royalties	$ 519,428	0	0	0	0	0	$ 519,428
Total Royalties							
All Minerals	**$ 556,979**	**0**	**0**	**0**	**0**	**0**	**$ 556,979**

	1920-85	1986	1987	1988	1989	1990	1920-90
Arkansas							
Oil in Barrels							
Volume	49,846	3,705	2,479	985	0	72	57,087
Sales Value	$ 193,746	$ 56,403	$ 40,952	$ 14,690	0	$ 1,146	$ 306,937
Royalties	$ 27,758	$ 6,945	$ 5,124	$ 1,836	0	$ 142	$ 41,805
Gas in Mcf							
Volume	69,303,154	5,018,855	5,244,438	7,165,772	5,419,409	6,076,129	98,227,757
Sales Value	$ 98,032,010	$ 13,774,736	$ 11,658,965	$ 14,268,539	$ 12,738,484	$ 12,990,175	$ 163,462,909
Royalties	$ 13,128,301	$ 1,797,837	$ 1,505,415	$ 1,865,054	$ 1,664,669	$ 1,677,987	$ 21,639,263
Other Products							
Sales Value	$ 1,768,239	$ 35,209	$ 113,558	$ 218,306	$ 81,140	$ 25,982	$ 2,242,434
Royalties	$ 65,745	$ 1,760	$ 5,203	$ 11,036	$ 4,053	$ 1,299	$ 89,096
Total Royalties							
All Minerals	**$ 13,221,804**	**$ 1,806,542**	**$ 1,515,742**	**$ 1,877,926**	**$ 1,668,722**	**$ 1,679,428**	**$ 21,770,164**

	1920-85	1986	1987	1988	1989	1990	1920-90
California							
Oil in Barrels							
Volume	1,368,320,520	20,826,447	19,884,609	18,712,811	17,721,457	19,624,911	1,465,090,755
Sales Value	$ 5,855,307,541	$ 252,362,151	$ 257,417,946	$ 194,252,318	$ 225,160,396	$ 311,786,456	$ 7,096,286,808
Royalties	$ 701,217,435	$ 30,908,583	$ 31,791,870	$ 23,950,409	$ 28,644,835	$ 38,091,745	$ 854,604,877
Gas in Mcf							
Volume	1,607,211,919	6,524,243	5,156,771	4,174,018	6,502,489	8,404,740	1,637,974,180
Sales Value	$ 393,495,883	$ 15,239,086	$ 10,174,615	$ 7,556,939	$ 12,838,485	$ 18,513,659	$ 457,818,667
Royalties	$ 68,704,474	$ 3,065,423	$ 2,126,547	$ 1,656,985	$ 2,073,986	$ 2,602,005	$ 80,229,420
Coal in Tons							
Volume	1,257	0	0	0	0	0	1,257
Sales Value	$ 3,190	0	0	0	0	0	$ 3,190
Royalties	$ 299	0	0	0	0	0	$ 299
Other Products							
Sales Value	$ 2,216,710,052	$ 237,903,911	$ 215,299,231	$ 218,097,810	$ 234,664,845	$ 268,628,713	$ 3,391,304,562
Royalties	$ 120,240,602	$ 22,042,944	$ 19,188,719	$ 18,474,034	$ 19,076,470	$ 20,588,191	$ 219,610,960
Total Royalties							
All Minerals	**$ 890,162,810**	**$ 56,016,950**	**$ 53,107,136**	**$ 44,081,428**	**$ 49,795,291**	**$ 61,281,941**	**$ 1,154,445,556**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Colorado							
Oil in Barrels							
Volume	497,835,062	7,412,090	8,102,745	7,919,326	7,588,626	8,734,029	537,591,878
Sales Value	$ 3,161,416,597	$ 107,539,629	$ 141,216,844	$ 118,782,823	$ 143,125,594	$ 197,663,445	$ 3,869,744,932
Royalties	$ 512,639,108	$ 16,629,286	$ 21,440,859	$ 17,397,637	$ 21,947,984	$ 31,173,292	$ 621,228,166
Gas in Mcf							
Volume	1,332,041,017	44,469,099	37,251,492	38,942,606	51,832,494	56,183,037	1,560,719,745
Sales Value	$ 970,522,494	$ 106,678,570	$ 63,616,259	$ 63,152,510	$ 80,821,748	$ 88,659,044	$ 1,373,450,625
Royalties	$ 115,547,882	$ 13,707,153	$ 7,064,882	$ 7,827,994	$ 9,640,635	$ 10,525,887	$ 164,314,433
Coal in Tons							
Volume	126,623,746	10,296,466	6,922,458	8,992,859	10,583,253	19,705,001	183,123,783
Sales Value	$ 1,997,466,727	$ 194,789,903	$ 173,920,774	$ 183,596,741	$ 215,324,252	$ 449,787,755	$ 3,214,886,152
Royalties	$ 90,430,841	$ 20,737,812	$ 14,780,341	$ 12,146,642	$ 16,103,220	$ 37,925,085	$ 192,123,941
Other Products							
Sales Value	$ 249,823,038	$ 104,686,185	$ 85,326,453	$ 115,312,912	$ 155,485,185	$ 207,800,313	$ 918,434,086
Royalties	$ 24,547,277	$ 12,544,583	$ 10,489,745	$ 9,346,251	$ 10,210,984	$ 13,885,906	$ 81,024,746
Total Royalties							
All Minerals	**$ 743,165,108**	**$ 63,618,834**	**$ 53,775,827**	**$ 46,718,524**	**$ 57,902,823**	**$ 93,510,170**	**$ 1,058,691,286**

	1920-85	1986	1987	1988	1989	1990	1920-90
Florida							
Oil in Barrels							
Volume	8,166	25,384	21,906	41,466	35,708	21,251	153,881
Sales Value	$ 107,283	$ 360,374	$ 387,618	$ 652,781	$ 642,714	$ 426,229	$ 2,576,999
Royalties	$ 13,411	$ 45,047	$ 48,452	$ 81,597	$ 80,938	$ 54,180	$ 323,625
Other Products							
Sales Value	$ 32,667,066	$ 1,621,856	$ 4,368	0	0	0	$ 34,293,290
Royalties	$ 1,644,863	$ 81,093	$ 218	0	0	0	$ 1,726,174
Total Royalties							
All Minerals	**$ 1,658,274**	**$ 126,140**	**$ 48,670**	**$ 81,597**	**$ 80,938**	**$ 54,180**	**$ 2,049,799**

	1920-85	1986	1987	1988	1989	1990	1920-90
Georgia							
Other Products							
Sales Value	$ 3,185,617	0	0	$ 136	$ 192	0	$ 3,185,945
Royalties	$ 122,304	0	0	$ 7	$ 10	0	$ 122,321
Total Royalties							
All Minerals	**$ 122,304**	**0**	**0**	**$ 7**	**$ 10**	**0**	**$ 122,321**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Idaho							
Coal in Tons							
Volume	31,574	0	0	0	0	0	31,574
Sales Value $	88,984	0	0	0	0	0 $	88,984
Royalties $	7,228	0	0	0	0	0 $	7,228
Other Products							
Sales Value $	495,855,754 $	35,637,173 $	44,559,403 $	45,515,100 $	57,657,206 $	67,160,410 $	746,385,046
Royalties $	28,358,758 $	1,751,236 $	2,227,493 $	3,144,387 $	2,958,835 $	3,392,256 $	41,832,965
Total Royalties							
All Minerals $	**28,365,986 $**	**1,751,236 $**	**2,227,493 $**	**3,144,387 $**	**2,958,835 $**	**3,392,256 $**	**41,840,193**

	1920-85	1986	1987	1988	1989	1990	1920-90
Illinois							
Oil in Barrels							
Volume	902	0	0	14,539	6,523	15,272	37,236
Sales Value $	16,978	0	0 $	218,517 $	105,622 $	348,785 $	689,902
Royalties $	2,829	0	0 $	27,315 $	13,367 $	43,957 $	87,468
Coal in Tons							
Volume	24,170	0	0	0	0	0	24,170
Sales Value $	92,128	0	0	0	0	0 $	92,128
Royalties $	3,138	0	0	0	0	0 $	3,138
Other Products							
Sales Value $	23,600,895 $	761,008	0 $	136,315	0	0 $	24,498,218
Royalties $	981,781 $	37,367	0 $	6,135	0	0 $	1,025,283
Total Royalties							
All Minerals $	**987,748 $**	**37,367**	**0 $**	**33,450 $**	**13,367 $**	**43,957 $**	**1,115,889**

	1920-85	1986	1987	1988	1989	1990	1920-90
Indiana							
Oil in Barrels							
Volume	5,679	0	0	0	0	0	5,679
Sales Value $	15,529	0	0	0	0	0 $	15,529
Royalties $	1,859	0	0	0	0	0 $	1,859
Total Royalties							
All Minerals $	**1,859**	**0**	**0**	**0**	**0**	**0 $**	**1,859**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Kansas							
Oil in Barrels							
Volume	16,200,116	230,237	256,019	334,921	280,543	336,723	17,638,559
Sales Value	$ 100,713,065	$ 3,551,778	$ 4,353,871	$ 5,139,298	$ 5,011,081	$ 7,620,144	$ 126,389,237
Royalties	$ 13,525,503	$ 455,244	$ 562,244	$ 675,791	$ 630,839	$ 992,496	$ 16,842,117
Gas in Mcf							
Volume	385,981,027	7,901,163	7,710,397	10,958,785	11,211,249	15,635,215	439,397,836
Sales Value	$ 114,011,806	$ 8,950,958	$ 9,906,102	$ 15,313,237	$ 16,820,878	$ 25,030,217	$ 190,033,198
Royalties	$ 15,366,053	$ 1,005,418	$ 1,209,138	$ 1,910,998	$ 2,032,794	$ 2,961,236	$ 24,485,637
Other Products							
Sales Value	$ 477,138	$ 171,039	$ 85,971	$ 269,096	$ 571,053	$ 696,358	$ 2,270,655
Royalties	$ 59,318	$ 21,380	$ 10,747	$ 32,078	$ 59,566	$ 74,960	$ 258,049
Total Royalties							
All Minerals	**$ 28,950,874**	**$ 1,482,042**	**$ 1,782,129**	**$ 2,618,867**	**$ 2,723,199**	**$ 4,028,692**	**$ 41,585,803**

	1920-85	1986	1987	1988	1989	1990	1920-90
Kentucky							
Oil in Barrels							
Volume	3,006,155	4,076	4,400	5,721	3,944	6,704	3,031,000
Sales Value	$ 10,483,911	$ 62,899	$ 75,910	$ 86,173	$ 68,842	$ 139,208	$ 10,916,943
Royalties	$ 1,564,858	$ 9,435	$ 11,304	$ 12,693	$ 10,177	$ 20,372	$ 1,628,839
Gas in Mcf							
Volume	2,397,516	329,613	290,100	239,215	257,069	285,183	3,798,696
Sales Value	$ 4,278,846	$ 1,014,076	$ 878,675	$ 679,766	$ 656,800	$ 648,623	$ 8,156,786
Royalties	$ 518,805	$ 139,669	$ 109,834	$ 84,971	$ 81,596	$ 80,101	$ 1,014,976
Coal in Tons							
Volume	2,994,873	0	0	238,423	142,121	124,650	3,500,067
Sales Value	$ 26,007,368	0	0	$ 6,023,729	$ 3,262,187	$ 3,124,887	$ 38,418,171
Royalties	$ 1,007,063	0	0	$ 484,153	$ 268,962	$ 258,737	$ 2,018,915
Total Royalties							
All Minerals	**$ 3,090,726**	**$ 149,104**	**$ 121,138**	**$ 581,817**	**$ 360,735**	**$ 359,210**	**$ 4,662,730**

	1920-85	1986	1987	1988	1989	1990	1920-90
Louisiana							
Oil in Barrels							
Volume	155,715,388	1,349,207	1,430,544	1,051,275	861,517	1,024,162	161,432,093
Sales Value	$ 776,838,868	$ 22,282,197	$ 25,395,129	$ 16,531,624	$ 15,452,309	$ 22,906,499	$ 879,406,626
Royalties	$ 92,611,100	$ 2,345,337	$ 2,786,851	$ 1,847,756	$ 1,770,393	$ 2,600,575	$ 103,962,012
Gas in Mcf							
Volume	1,490,159,304	11,491,304	11,871,768	12,651,360	14,207,373	15,366,831	1,555,747,940
Sales Value	$ 363,503,378	$ 15,784,151	$ 18,288,763	$ 20,234,725	$ 25,261,143	$ 27,641,529	$ 470,713,689
Royalties	$ 51,227,431	$ 2,161,330	$ 2,657,402	$ 2,814,206	$ 3,488,318	$ 3,886,828	$ 66,235,515
Other Products							
Sales Value	$ 77,625,497	$ 2,830,003	$ 2,568,431	$ 3,191,890	$ 2,884,723	$ 4,483,020	$ 93,583,564
Royalties	$ 12,050,889	$ 422,089	$ 382,218	$ 390,145	$ 278,419	$ 461,746	$ 13,985,506
Total Royalties							
All Minerals	**$ 155,889,420**	**$ 4,928,756**	**$ 5,826,471**	**$ 5,052,107**	**$ 5,537,130**	**$ 6,949,149**	**$ 184,183,033**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Maine							
Other Products							
Sales Value $	9,711	0	0	0	0	0 $	9,711
Royalties $	818	0	0	0	0	0 $	818
Total Royalties							
All Minerals $	**818**	**0**	**0**	**0**	**0**	**0 $**	**818**

	1920-85	1986	1987	1988	1989	1990	1920-90
Maryland							
Gas in Mcf							
Volume	3,822,891	255	10,439	6,391	8,037	1,062	3,849,075
Sales Value $	1,067,182 $	179 $	6,263 $	4,026 $	4,903 $	839 $	1,083,392
Royalties $	134,138 $	22 $	783 $	503 $	613 $	104 $	136,163
Total Royalties							
All Minerals $	**134,138 $**	**22 $**	**783 $**	**503 $**	**613 $**	**104 $**	**136,163**

	1920-85	1986	1987	1988	1989	1990	1920-90
Michigan							
Oil in Barrels							
Volume	1,626,599	107,167	106,356	99,248	129,963	179,091	2,248,424
Sales Value $	22,740,230 $	1,732,404 $	1,864,759 $	1,500,129 $	2,234,068 $	3,638,067 $	33,709,657
Royalties $	3,147,555 $	215,187 $	235,682 $	192,311 $	284,442 $	460,465 $	4,535,642
Gas in Mcf							
Volume	7,788,923	1,353,655	1,623,534	3,009,380	3,461,282	5,131,812	22,368,586
Sales Value $	14,954,625 $	4,324,905 $	3,467,968 $	7,266,218 $	8,342,392 $	12,719,220 $	51,075,328
Royalties $	1,850,908 $	256,407 $	433,496 $	918,799 $	1,037,312 $	1,577,759 $	6,074,681
Other Products							
Sales Value $	207,480	0 $	91,189 $	260,012 $	425,468 $	894,145 $	1,878,294
Royalties $	30,270	0 $	11,399 $	28,928 $	44,809 $	103,266 $	218,672
Total Royalties							
All Minerals $	**5,028,733 $**	**471,594 $**	**680,577 $**	**1,140,038 $**	**1,366,563 $**	**2,141,490 $**	**10,828,995**

	1920-85	1986	1987	1988	1989	1990	1920-90
Minnesota							
Other Products							
Sales Value $	11,288,176 $	1,551,047 $	9,976,173 $	354,396 $	3,914,456 $	7,159,784 $	34,244,032
Royalties $	445,812 $	62,249 $	399,047 $	11,579 $	134,539 $	250,543 $	1,303,769
Total Royalties							
All Minerals $	**445,812 $**	**62,249 $**	**399,047 $**	**11,579 $**	**134,539 $**	**250,543 $**	**1,303,769**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Mississippi							
Oil in Barrels							
Volume	51,681,477	711,049	624,285	586,271	611,422	688,258	54,902,762
Sales Value	$ 301,860,829	$ 11,114,638	$ 10,947,451	$ 8,787,621	$ 10,771,938	$ 14,919,501	$ 358,401,978
Royalties	$ 37,295,931	$ 1,382,318	$ 1,336,905	$ 1,089,164	$ 1,335,275	$ 1,866,164	$ 44,305,757
Gas in Mcf							
Volume	84,009,019	1,563,483	1,272,244	997,437	795,980	858,889	89,497,052
Sales Value	$ 56,671,786	$ 3,439,163	$ 2,246,777	$ 1,963,853	$ 1,547,185	$ 1,760,038	$ 67,628,802
Royalties	$ 7,724,894	$ 410,064	$ 288,934	$ 243,580	$ 192,320	$ 219,933	$ 9,079,725
Other Products							
Sales Value	$ 411,323	$ 786	0	0	0	$ 104,382	$ 516,491
Royalties	$ 13,182	$ 98	0	0	0	$ 12,969	$ 26,249
Total Royalties							
All Minerals	**$ 45,034,007**	**$ 1,792,480**	**$ 1,625,839**	**$ 1,332,744**	**$ 1,527,595**	**$ 2,099,066**	**$ 53,411,731**

	1920-85	1986	1987	1988	1989	1990	1920-90
Missouri							
Other Products							
Sales Value	$ 2,045,188,919	$ 86,744,209	$ 143,106,308	$ 211,387,268	$ 247,070,652	$ 211,457,055	$ 2,944,954,411
Royalties	$ 91,272,289	$ 2,678,417	$ 4,460,895	$ 6,852,151	$ 7,765,935	$ 6,915,940	$ 119,945,627
Total Royalties							
All Minerals	**$ 91,272,289**	**$ 2,678,417**	**$ 4,460,895**	**$ 6,852,151**	**$ 7,765,935**	**$ 6,915,940**	**$ 119,945,627**

	1920-85	1986	1987	1988	1989	1990	1920-90
Montana							
Oil in Barrels							
Volume	279,729,287	4,606,038	4,209,570	3,839,065	3,441,239	3,716,987	299,542,186
Sales Value	$ 1,701,849,343	$ 68,412,176	$ 68,223,406	$ 53,578,775	$ 55,703,432	$ 74,832,531	$ 2,022,599,663
Royalties	$ 209,496,257	$ 7,548,159	$ 7,665,880	$ 6,092,168	$ 6,362,571	$ 8,622,233	$ 245,787,268
Gas in Mcf							
Volume	330,571,080	11,099,365	14,968,968	8,390,794	10,422,978	9,520,476	384,973,661
Sales Value	$ 201,555,897	$ 25,350,887	$ 20,074,876	$ 16,482,316	$ 20,111,668	$ 19,316,229	$ 302,891,873
Royalties	$ 22,056,424	$ 2,588,170	$ 2,504,588	$ 2,053,674	$ 2,459,533	$ 2,378,344	$ 34,040,733
Coal in Tons							
Volume	180,547,986	24,681,884	21,012,476	20,626,026	23,695,342	27,245,871	297,809,585
Sales Value	$ 1,693,517,514	$ 311,291,759	$ 332,226,077	$ 297,352,200	$ 270,581,091	$ 309,093,161	$ 3,214,061,802
Royalties	$ 62,308,052	$ 22,446,731	$ 39,110,631	$ 35,591,525	$ 26,544,365	$ 29,154,703	$ 215,156,007
Other Products							
Sales Value	$ 98,881,276	$ 3,611,735	$ 1,765,660	$ 2,163,440	$ 3,281,515	$ 3,367,214	$ 113,070,840
Royalties	$ 4,172,806	$ 351,316	$ 197,388	$ 147,541	$ 204,389	$ 233,374	$ 5,306,814
Total Royalties							
All Minerals	**$ 298,033,539**	**$ 32,934,376**	**$ 49,478,487**	**$ 43,884,908**	**$ 35,570,858**	**$ 40,388,654**	**$ 500,290,822**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Nebraska							
Oil in Barrels							
Volume	1,565,068	146,834	122,168	102,534	97,335	115,099	2,149,038
Sales Value	$ 29,306,521	$ 2,178,793	$ 2,114,735	$ 1,558,588	$ 1,718,841	$ 2,429,624	$ 39,307,102
Royalties	$ 3,642,470	$ 269,628	$ 261,912	$ 195,469	$ 218,550	$ 308,768	$ 4,896,797
Gas in Mcf							
Volume	11,160,962	7,009	0	0	0	0	11,167,971
Sales Value	$ 7,431,181	$ 10,760	0	0	0	0	$ 7,441,941
Royalties	$ 1,223,720	$ 1,837	0	0	0	0	$ 1,225,557
Other Products							
Sales Value	$ 4,550,971	$ 2,743	$ (22,525)	0	0	0	$ 4,531,189
Royalties	$ 371,310	$ 457	$ (3,754)	0	0	0	$ 368,013
Total Royalties							
All Minerals	**$ 5,237,500**	**$ 271,922**	**$ 258,158**	**$ 195,469**	**$ 218,550**	**$ 308,768**	**$ 6,490,367**

	1920-85	1986	1987	1988	1989	1990	1920-90
Nevada							
Oil in Barrels							
Volume	13,261,609	2,787,446	3,145,419	3,167,416	3,145,254	4,001,425	29,508,569
Sales Value	$ 178,470,958	$ 26,583,769	$ 33,277,960	$ 28,308,323	$ 38,812,437	$ 63,022,440	$ 368,475,887
Royalties	$ 22,281,863	$ 3,345,201	$ 4,159,745	$ 3,539,249	$ 4,851,555	$ 8,381,984	$ 46,559,597
Coal in Tons							
Volume	141	0	0	0	0	0	141
Sales Value	$ 207	0	0	0	0	0	$ 207
Royalties	$ 133	0	0	0	0	0	$ 133
Other Products							
Sales Value	$ 37,023,077	$ 5,038,088	$ 7,010,370	$ 15,136,327	$ 25,466,153	$ 26,587,436	$ 116,261,451
Royalties	$ 269,062	$ 314,085	$ 510,909	$ 1,186,001	$ 2,035,145	$ 2,132,598	$ 6,447,800
Total Royalties							
All Minerals	**$ 22,551,058**	**$ 3,659,286**	**$ 4,670,654**	**$ 4,725,250**	**$ 6,886,700**	**$ 10,514,582**	**$ 53,007,530**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
New Mexico							
Oil in Barrels							
Volume	1,107,807,522	23,104,610	21,840,599	21,093,314	21,161,868	23,887,162	1,218,895,075
Sales Value	$ 7,177,576,628	$ 368,929,611	$ 372,487,190	$ 318,057,953	$ 369,244,206	$ 522,883,766	$ 9,129,179,354
Royalties	$ 876,478,586	$ 46,209,491	$ 45,872,467	$ 39,811,665	$ 45,849,368	$ 64,885,368	$ 1,119,106,945
Gas in Mcf							
Volume	16,400,856,881	374,440,453	422,912,834	408,854,742	414,736,695	532,647,412	18,554,449,017
Sales Value	$12,314,392,571	$ 782,954,115	$ 695,041,094	$ 716,459,283	$ 663,784,280	$ 849,879,588	$16,022,510,931
Royalties	$ 1,536,045,524	$ 97,696,290	$ 85,839,782	$ 88,855,918	$ 79,514,738	$ 102,079,359	$ 1,990,031,611
Coal in Tons							
Volume	53,665,850	4,253,749	3,261,040	3,372,358	6,207,133	6,562,018	77,322,148
Sales Value	$ 721,081,727	$ 101,069,049	$ 83,322,695	$ 85,091,413	$ 153,466,999	$ 183,376,050	$ 1,327,407,933
Royalties	$ 57,066,183	$ 13,475,148	$ 10,595,326	$ 10,999,760	$ 18,992,458	$ 21,997,591	$ 133,126,466
Other Products							
Sales Value	$ 4,546,989,828	$ 136,243,028	$ 170,638,756	$ 240,206,551	$ 266,832,374	$ 318,952,343	$ 5,679,862,880
Royalties	$ 189,010,858	$ 7,633,223	$ 8,392,685	$ 9,115,771	$ 11,156,301	$ 14,799,891	$ 240,108,729
Total Royalties							
All Minerals	**$ 2,658,601,151**	**$ 165,014,152**	**$ 150,700,260**	**$ 148,783,114**	**$ 155,512,865**	**$ 203,762,209**	**$ 3,482,373,751**

	1920-85	1986	1987	1988	1989	1990	1920-90
North Carolina							
Other Products							
Sales Value	$ 315,696	0	0	0	0	0	$ 315,696
Royalties	$ 19,154	0	0	0	0	0	$ 19,154
Total Royalties							
All Minerals	**$ 19,154**	**0**	**0**	**0**	**0**	**0**	**$ 19,154**

	1920-85	1986	1987	1988	1989	1990	1920-90
North Dakota							
Oil in Barrels							
Volume	133,154,393	11,413,393	9,872,501	8,291,959	7,039,428	6,915,152	176,686,826
Sales Value	$ 2,750,006,526	$ 165,379,797	$ 161,967,416	$ 124,380,261	$ 118,052,302	$ 149,647,475	$ 3,469,433,777
Royalties	$ 331,215,316	$ 19,566,235	$ 18,646,892	$ 14,394,980	$ 14,234,024	$ 18,304,845	$ 416,362,292
Gas in Mcf							
Volume	101,552,975	16,846,282	13,407,249	13,285,646	10,300,618	12,724,967	168,117,737
Sales Value	$ 175,888,615	$ 41,115,430	$ 21,009,836	$ 21,351,877	$ 15,080,131	$ 16,349,442	$ 290,795,331
Royalties	$ 21,157,624	$ 4,692,644	$ 2,399,204	$ 2,641,470	$ 1,826,995	$ 2,000,152	$ 34,718,089
Coal in Tons							
Volume	46,068,256	4,876,793	5,326,944	5,171,486	4,954,981	5,535,560	71,934,020
Sales Value	$ 207,368,854	$ 55,315,790	$ 47,033,210	$ 42,476,935	$ 41,603,674	$ 49,701,309	$ 443,499,772
Royalties	$ 15,647,786	$ 6,843,255	$ 4,721,524	$ 4,905,510	$ 3,646,461	$ 4,742,167	$ 40,506,703
Other Products							
Sales Value	$ 62,384,078	$ 5,008,842	$ 6,202,058	$ 5,335,249	$ 5,110,822	$ 6,651,784	$ 90,692,833
Royalties	$ 4,456,471	$ 561,197	$ 773,828	$ 516,844	$ 410,473	$ 527,004	$ 7,245,817
Total Royalties							
All Minerals	**$ 372,477,197**	**$ 31,663,331**	**$ 26,541,448**	**$ 22,458,804**	**$ 20,117,953**	**$ 25,574,168**	**$ 498,832,901**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Ohio							
Oil in Barrels							
Volume	815,301	10,721	9,918	20,680	32,248	27,180	916,048
Sales Value $	2,789,158 $	235,334 $	169,618 $	325,706 $	558,322 $	576,577 $	4,654,715
Royalties $	415,647 $	25,739 $	21,202 $	40,788 $	69,238 $	71,534 $	644,148
Gas in Mcf							
Volume	5,400,511	200,943	76,476	1,279,791	(860,775)	316,006	6,412,952
Sales Value $	1,835,866 $	67,385 $	152,953 $	1,577,520 $	(688,147)$	732,778 $	3,678,355
Royalties $	207,855 $	7,055 $	19,119 $	197,190 $	(86,097)$	91,042 $	436,164
Coal in Tons							
Volume	489,461	0	0	0	0	0	489,461
Sales Value $	2,066,465	0	0	0	0	0 $	2,066,465
Royalties $	89,459	0	0	0	0	0 $	89,459
Total Royalties							
All Minerals $	**712,961 $**	**32,794 $**	**40,321 $**	**237,978 $**	**(16,859)$**	**162,576 $**	**1,169,771**

	1920-85	1986	1987	1988	1989	1990	1920-90
Oklahoma							
Oil in Barrels							
Volume	16,604,109	217,869	214,437	237,789	289,750	290,780	17,854,734
Sales Value $	93,123,314 $	3,611,615 $	3,708,114 $	3,770,221 $	5,058,420 $	6,658,558 $	115,930,242
Royalties $	10,979,716 $	428,522 $	463,781 $	471,278 $	646,934 $	754,674 $	13,744,905
Gas in Mcf							
Volume	329,604,952	17,085,700	16,301,800	17,623,853	17,621,312	21,955,263	420,192,880
Sales Value $	338,923,980 $	32,150,645 $	23,764,593 $	25,323,059 $	30,543,013 $	30,001,204 $	480,706,494
Royalties $	41,844,502 $	3,469,579 $	2,952,811 $	3,156,281 $	3,831,329 $	3,710,621 $	58,965,123
Coal in Tons							
Volume	9,186,371	31,644	0	80,783	102,296	145,041	9,546,135
Sales Value $	142,916,813 $	904,136	0 $	2,959,144 $	3,606,776 $	4,259,929 $	154,646,798
Royalties $	6,363,541 $	20,583	0 $	69,285 $	109,980 $	264,376 $	6,827,765
Other Products							
Sales Value $	36,519,857 $	407,114 $	199,210 $	525,310 $	639,245 $	704,741 $	38,995,477
Royalties $	610,197 $	30,475 $	26,769 $	39,433 $	45,509 $	53,265 $	805,648
Total Royalties							
All Minerals $	**59,797,956 $**	**3,949,159 $**	**3,443,361 $**	**3,736,277 $**	**4,633,752 $**	**4,782,936 $**	**80,343,441**

	1920-85	1986	1987	1988	1989	1990	1920-90
Oregon							
Coal in Tons							
Volume	20,603	0	0	0	0	0	20,603
Sales Value $	374,084	0	0	0	0	0 $	374,084
Royalties $	24,147	0	0	0	0	0 $	24,147
Other Products							
Sales Value $	40	0	0	0	0	0 $	40
Royalties $	5	0	0	0	0	0 $	5
Total Royalties							
All Minerals $	**24,152**	**0**	**0**	**0**	**0**	**0 $**	**24,152**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Pennsylvania							
Oil in Barrels							
Volume	989	0	2,876	4,654	3,289	4,528	16,336
Sales Value $	4,041	0 $	52,310 $	67,536 $	59,889 $	102,514 $	286,290
Royalties $	491	0 $	6,539 $	8,375 $	7,487 $	12,774 $	35,666
Gas in Mcf							
Volume	2,794,991	0	9,260	73,898	182,865	133,088	3,194,102
Sales Value $	952,753	0 $	7,686 $	39,905 $	287,781 $	207,187 $	1,495,312
Royalties $	95,385	0 $	961 $	4,988 $	35,866 $	25,863 $	163,063
Total Royalties							
All Minerals $	**95,876**	**0 $**	**7,500 $**	**13,363 $**	**43,353 $**	**38,637 $**	**198,729**

	1920-85	1986	1987	1988	1989	1990	1920-90
South Carolina							
Other Products							
Sales Value $	118,542	0	0	0	0	0 $	118,542
Royalties $	5,927	0	0	0	0	0 $	5,927
Total Royalties							
All Minerals $	**5,927**	**0**	**0**	**0**	**0**	**0 $**	**5,927**

	1920-85	1986	1987	1988	1989	1990	1920-90
South Dakota							
Oil in Barrels							
Volume	2,679,671	553,152	509,500	422,565	401,523	440,881	5,007,292
Sales Value $	60,774,645 $	7,970,367 $	8,253,114 $	6,262,965 $	6,525,504 $	9,151,425 $	98,938,020
Royalties $	7,493,768 $	887,255 $	1,031,639 $	772,725 $	804,946 $	1,129,315 $	12,119,648
Gas in Mcf							
Volume	2,049,834	357,750	366,255	279,611	231,153	199,047	3,483,650
Sales Value $	6,256,185 $	511,120 $	455,215 $	421,667 $	300,500 $	244,880 $	8,189,567
Royalties $	659,617 $	57,179 $	53,361 $	51,305 $	36,961 $	30,424 $	888,847
Coal in Tons							
Volume	41,435	0	0	0	0	0	41,435
Sales Value $	69,381	0	0	0	0	0 $	69,381
Royalties $	7,119	0	0	0	0	0 $	7,119
Other Products							
Sales Value $	33,732 $	21,820	0 $	37,387 $	23,115 $	24,908 $	140,962
Royalties $	4,218 $	2,727	0 $	4,673 $	2,889 $	3,113 $	17,620
Total Royalties							
All Minerals $	**8,164,722 $**	**947,161 $**	**1,085,000 $**	**828,703 $**	**844,796 $**	**1,162,852 $**	**13,033,234**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Tennessee							
Other Products							
Sales Value	$ 81,340	0	0	0	0	0	$ 81,340
Royalties	$ 4,452	0	0	0	0	0	$ 4,452
Total Royalties							
All Minerals	**$ 4,452**	**0**	**0**	**0**	**0**	**0**	**$ 4,452**

	1920-85	1986	1987	1988	1989	1990	1920-90
Texas							
Oil in Barrels							
Volume	7,611,259	336,261	378,686	283,096	220,383	251,851	9,081,536
Sales Value	$ 53,023,978	$ 5,353,592	$ 7,642,595	$ 4,470,570	$ 3,905,698	$ 5,640,630	$ 80,037,063
Royalties	$ 6,934,593	$ 741,734	$ 803,488	$ 571,495	$ 477,246	$ 695,146	$ 10,223,702
Gas in Mcf							
Volume	81,724,392	2,937,725	3,970,109	1,722,372	1,275,866	1,391,619	93,022,083
Sales Value	$ 45,158,325	$ 5,032,775	$ 6,346,829	$ 2,829,021	$ 2,144,469	$ 2,465,387	$ 63,976,806
Royalties	$ 4,535,645	$ 602,246	$ 785,083	$ 346,882	$ 259,211	$ 298,732	$ 6,827,799
Other Products							
Sales Value	$ 10,714,984	$ 496,002	$ 72,762	$ 105,935	$ 147,584	$ 411,431	$ 11,948,698
Royalties	$ 636,299	$ 70,953	$ 8,215	$ 13,655	$ 13,753	$ 34,289	$ 777,164
Total Royalties							
All Minerals	**$ 12,106,537**	**$ 1,414,933**	**$ 1,596,786**	**$ 932,032**	**$ 750,210**	**$ 1,028,167**	**$ 17,828,665**

	1920-85	1986	1987	1988	1989	1990	1920-90
Utah							
Oil in Barrels							
Volume	234,281,247	6,512,093	6,516,132	5,869,096	5,795,761	6,003,862	264,978,191
Sales Value	$ 1,577,335,842	$ 86,278,807	$ 105,001,154	$ 79,881,759	$ 101,328,124	$ 129,312,726	$ 2,079,138,412
Royalties	$ 197,349,542	$ 10,767,847	$ 13,013,191	$ 9,898,161	$ 12,561,754	$ 16,197,948	$ 259,788,443
Gas in Mcf							
Volume	766,698,458	32,554,777	28,449,356	28,646,059	34,513,187	37,154,823	928,016,660
Sales Value	$ 619,143,355	$ 77,507,744	$ 51,518,668	$ 44,588,839	$ 53,765,290	$ 52,171,443	$ 898,695,339
Royalties	$ 76,276,457	$ 9,983,151	$ 6,362,239	$ 5,647,502	$ 6,730,823	$ 6,368,594	$ 111,368,766
Coal in Tons							
Volume	180,692,802	10,631,069	13,707,055	14,294,720	16,528,554	17,265,793	253,119,993
Sales Value	$ 2,326,938,776	$ 302,463,575	$ 379,960,984	$ 395,922,539	$ 404,340,212	$ 439,206,512	$ 4,248,832,598
Royalties	$ 63,742,247	$ 16,321,635	$ 22,262,416	$ 16,628,521	$ 28,119,418	$ 28,808,738	$ 175,882,975
Other Products							
Sales Value	$ 125,746,621	$ 10,821,749	$ 9,555,372	$ 22,331,466	$ 13,070,515	$ 19,846,873	$ 201,372,596
Royalties	$ 8,286,315	$ 1,045,847	$ 944,250	$ 2,310,862	$ 1,084,602	$ 1,745,697	$ 15,417,573
Total Royalties							
All Minerals	**$ 345,654,561**	**$ 38,118,480**	**$ 42,582,096**	**$ 34,485,046**	**$ 48,496,597**	**$ 53,120,977**	**$ 562,457,757**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Virginia							
Coal in Tons							
Volume	48,696	0	0	0	0	0	48,696
Sales Value $	1,744,956	0	0	0	0	0 $	1,744,956
Royalties $	138,922 $	(23,089)	0	0	0	0 $	115,833
Other Products							
Sales Value $	7,685,396	0 $	346,134 $	213,230 $	53,160 $	270,231 $	8,568,151
Royalties $	258,823	0 $	12,743 $	10,662 $	2,658 $	13,512 $	298,398
Total Royalties							
All Minerals $	**397,745 $**	**(23,089)$**	**12,743 $**	**10,662 $**	**2,658 $**	**13,512 $**	**414,231**

	1920-85	1986	1987	1988	1989	1990	1920-90
Washington							
Coal in Tons							
Volume	3,199,882	558,856	528,025	507,916	662,264	874,986	6,331,929
Sales Value $	35,432,473 $	14,340,245 $	14,853,343 $	13,134,627 $	16,536,707 $	22,662,137 $	116,959,532
Royalties $	591,119 $	111,771 $	105,605 $	111,788 $	249,132 $	173,787 $	1,343,202
Total Royalties							
All Minerals $	**591,119 $**	**111,771 $**	**105,605 $**	**111,788 $**	**249,132 $**	**173,787 $**	**1,343,202**

	1920-85	1986	1987	1988	1989	1990	1920-90
West Virginia							
Oil in Barrels							
Volume	0	0	0	0	231	64	295
Sales Value	0	0	0	0 $	3,691 $	1,307 $	4,998
Royalties	0	0	0	0 $	461 $	163 $	624
Gas in Mcf							
Volume	36,386,314	1,349,894	2,114,347	1,984,178	1,493,520	1,596,935	44,925,188
Sales Value $	14,785,451 $	2,555,946 $	2,755,023 $	2,550,636 $	2,265,896 $	3,721,877 $	28,634,829
Royalties $	2,114,945 $	137,271 $	341,749 $	317,435 $	281,267 $	460,311 $	3,652,978
Total Royalties							
All Minerals $	**2,114,945 $**	**137,271 $**	**341,749 $**	**317,435 $**	**281,728 $**	**460,474 $**	**3,653,602**

Table 19.--Summary of volume, sales value, and royalties by State and commodity from Federal onshore mineral leases, 1920-90 (cont.)

	1920-85	1986	1987	1988	1989	1990	1920-90
Wyoming							
Oil in Barrels							
Volume	3,072,605,594	75,310,537	71,326,893	66,120,236	63,815,807	67,180,209	3,416,359,276
Sales Value	$20,686,352,240	$1,069,870,090	$1,162,680,852	$ 909,032,299	$1,032,350,240	$1,360,901,033	$26,221,186,754
Royalties	$ 2,594,328,310	$ 124,021,213	$ 136,076,684	$ 108,357,983	$ 122,177,177	$ 162,609,989	$ 3,247,571,356
Gas in Mcf							
Volume	5,599,018,842	235,887,124	267,618,588	312,672,292	308,655,331	395,843,743	7,119,695,920
Sales Value	$ 5,257,555,255	$ 550,364,657	$ 476,533,041	$ 447,073,013	$ 472,037,703	$ 594,384,999	$ 7,797,948,668
Royalties	$ 652,263,492	$ 71,874,321	$ 59,067,090	$ 56,927,484	$ 60,735,466	$ 69,811,429	$ 970,679,282
Coal in Tons							
Volume	604,877,368	111,407,678	120,404,308	145,925,209	146,264,126	175,013,698	1,303,892,387
Sales Value	$ 5,383,112,851	$1,505,693,411	$1,638,362,980	$1,403,440,463	$1,586,288,562	$1,314,225,312	$12,831,123,579
Royalties	$ 157,659,988	$ 28,486,778	$ 60,894,526	$ 91,858,561	$ 100,112,259	$ 111,192,225	$ 550,204,337
Other Products							
Sales Value	$ 2,482,257,205	$ 210,588,289	$ 143,112,419	$ 206,213,443	$ 257,534,441	$ 334,060,153	$ 3,633,765,950
Royalties	$ 128,933,337	$ 13,029,094	$ 8,781,833	$ 12,098,334	$ 13,766,649	$ 17,228,403	$ 193,837,650
Total Royalties							
All Minerals	**$ 3,533,185,127**	**$ 237,411,406**	**$ 264,820,133**	**$ 269,242,362**	**$ 296,791,551**	**$ 360,842,046**	**$ 4,962,292,625**

	1920-85	1986	1987	1988	1989	1990	1920-90
Onshore Federal Totals							
Oil in Barrels							
Volume	7,169,825,857	157,297,487	149,977,454	138,989,604	132,705,344	145,938,345	7,894,734,091
Sales Value	$45,628,228,771	$2,227,484,741	$2,389,418,077	$1,887,117,906	$2,136,264,916	$2,927,745,376	$57,196,259,787
Royalties	$ 5,754,218,888	$ 268,689,563	$ 289,069,747	$ 230,896,902	$ 263,056,653	$ 362,642,855	$ 7,168,574,608
Gas in Mcf							
Volume	29,895,124,814	821,841,109	887,679,926	901,859,470	896,740,980	1,201,458,760	34,604,705,059
Sales Value	$21,670,559,141	$1,764,993,100	$1,475,653,725	$1,445,305,049	$1,422,757,388	$1,861,252,013	$29,640,520,416
Royalties	$ 2,716,106,502	$ 224,601,025	$ 183,941,568	$ 182,044,265	$ 176,414,932	$ 225,489,863	$ 3,708,598,155
Coal in Tons							
Volume	1,228,706,591	166,738,139	171,162,306	199,209,780	209,287,543	253,029,394	2,228,133,753
Sales Value	$12,682,199,362	$2,485,867,868	$2,669,680,063	$2,429,997,791	$2,700,659,808	$2,797,596,475	$25,766,001,367
Royalties	$ 457,704,882	$ 108,420,624	$ 152,470,369	$ 172,795,745	$ 194,541,835	$ 236,067,011	$ 1,322,000,466
Other Products							
Sales Value	$12,588,291,657	$ 844,786,663	$ 840,880,757	$1,087,472,411	$1,274,931,720	$1,482,185,233	$18,118,548,441
Royalties	$ 618,392,566	$ 62,759,211	$ 56,929,325	$ 63,798,020	$ 69,257,958	$ 82,732,718	$ 953,869,798
Total Royalties							
All Minerals	**$ 9,546,422,838**	**$ 664,470,423**	**$ 682,411,009**	**$ 649,534,932**	**$ 703,271,378**	**$ 906,932,447**	**$13,153,043,027**

Table 20.--1990 volume, sales value, and royalties by commodity and State from Federal onshore mineral leases

	Production Volume	Sales Value	Royalties Received
Bentonite			
Wyoming..........................	23,343	$ 466,860	$ 25,678
Carbon Dioxide			
Colorado.........................	216,042,413	$ 199,132,559	$ 13,288,653
New Mexico.......................	9,300,613	4,870,401	597,647
Wyoming..........................	19,568,906	12,774,934	84,149
Subtotal.....................	244,911,932	$ 216,777,894	$ 13,970,449
Coal			
Alabama..........................	556,776	$ 22,159,423	$ 1,549,602
Colorado.........................	19,705,001	449,787,755	37,925,085
Kentucky.........................	124,650	3,124,887	258,737
Montana..........................	27,245,871	309,093,161	29,154,703
New Mexico.......................	6,562,018	183,376,050	21,997,591
North Dakota.....................	5,535,560	49,701,309	4,742,167
Oklahoma.........................	145,041	4,259,929	264,376
Utah.............................	17,265,793	439,206,512	28,808,738
Washington.......................	874,986	22,662,137	173,787
Wyoming..........................	175,013,698	1,314,225,312	111,192,225
Subtotal.....................	253,029,394	$2,797,596,475	$236,067,011
Copper			
Missouri.........................	44,797	$ 28,454,866	$ 929,859
Garnet Concession			
Idaho............................	1,002	$ 5,010	$ 351
Garnet Sands			
Idaho............................	226	$ 33,834	$ 1,128

Table 20.--1990 volume, sales value, and royalties by commodity and State from Federal onshore mineral leases

	Production Volume	Sales Value	Royalties Received
Gas			
Alabama..........................	140,038	$ 300,276	$ 37,519
Alaska...........................	79,892,445	103,513,379	14,665,633
Arkansas.........................	6,076,129	12,990,175	1,677,987
California.......................	8,404,740	18,513,659	2,602,005
Colorado.........................	56,183,037	88,659,044	10,525,887
Kansas...........................	15,635,215	25,030,217	2,961,236
Kentucky.........................	285,183	648,623	80,101
Louisiana........................	15,366,831	27,641,529	3,886,828
Maryland.........................	1,062	839	104
Michigan.........................	5,131,812	12,719,220	1,577,759
Mississippi......................	858,889	1,760,038	219,933
Montana..........................	9,520,476	19,316,229	2,378,344
New Mexico.......................	532,647,412	849,879,588	102,079,359
North Dakota.....................	12,724,967	16,349,442	2,000,152
Ohio.............................	316,006	732,778	91,042
Oklahoma.........................	21,955,263	30,001,204	3,710,621
Pennsylvania.....................	133,088	207,187	25,863
South Dakota.....................	199,047	244,880	30,424
Texas............................	1,391,619	2,465,387	298,732
Utah.............................	37,154,823	52,171,443	6,368,594
West Virginia....................	1,596,935	3,721,877	460,311
Wyoming..........................	395,843,743	594,384,999	69,811,429
Subtotal.....................	1,201,458,760	$1,861,252,013	$225,489,863
Gas Lost			
California.......................	26,953	$ 117,410	$ 14,676
Colorado.........................	372	956	120
Mississippi......................	68,280	79,887	9,907
New Mexico.....................	36,963	54,043	6,756
North Dakota.....................	(151,505)	(473,734)	(58,743)
Wyoming..........................	103	295	37
Subtotal.....................	(18,834)	$ (221,143)	$ (27,247)

Table 20.--1990 volume, sales value, and royalties by commodity and State from Federal onshore mineral leases (cont.)

	Production Volume	Sales Value	Royalties Received
Gas Plant Products			
Alabama	2,513	$ 991	$ 401
Alaska	7,103,648	2,867,656	270,798
California	13,109,861	5,517,960	315,619
Colorado	25,376,148	8,666,798	597,133
Kansas	2,397,873	696,298	74,953
Louisiana	15,862,116	4,483,020	461,746
Michigan	2,611,976	894,145	103,266
Mississippi	93,465	24,495	3,062
Montana	5,450,887	1,807,656	153,902
New Mexico	433,397,195	116,177,833	10,215,690
North Dakota	24,719,535	6,781,372	553,317
Oklahoma	2,513,687	704,741	53,265
South Dakota	82,316	24,908	3,113
Texas	1,325,449	411,431	34,289
Utah	25,148,501	7,381,393	630,437
Wyoming	155,126,239	47,272,366	3,660,394
Subtotal	714,321,409	$ 203,713,063	$ 17,131,385
Geothermal			
California	28,750,006	$ 119,740,850	$ 12,058,326
Nevada	1,962,341	15,502,495	1,534,747
Utah	711,529	9,894,655	989,468
Subtotal	31,423,876	$ 145,138,000	$ 14,582,541
Gilsonite			
Utah	3,534	$ 513,045	$ 64,131
Helium			
Kansas	322	$ 60	$ 7
Hot Water			
California	2,207,163	$ 23,197,281	$ 2,296,531
Nevada	142,390	1,591,915	158,931
New Mexico	42,902	43,349	4,335
Subtotal	2,392,455	$ 24,832,545	$ 2,459,797
Iron Ore			
Minnesota	255,707	$ 7,159,784	$ 250,543
Langbeinite			
New Mexico	624,018	$ 42,974,045	$ 859,468

Table 20.--1990 volume, sales value, and royalties by commodity and State from Federal onshore mineral leases (cont.)

	Production Volume	Sales Value	Royalties Received
Lead			
Missouri........................	280,823	$ 146,498,457	$ 4,687,289
Limestone			
Virginia........................	62,763	$ 270,231	$ 13,512
Magnesium			
Utah............................	29,637	$ 647,128	$ 19,414
Nitrogen			
Wyoming.........................	38,241	$ 139,198	$ 16,634
Oil			
Alabama.........................	14,445	$ 300,285	$ 53,703
Alaska..........................	2,458,247	42,835,005	5,311,023
Arkansas........................	72	1,146	142
California......................	19,624,911	311,786,456	38,091,745
Colorado........................	8,734,029	197,663,445	31,173,292
Florida.........................	21,251	426,229	54,180
Illinois........................	15,272	348,785	43,957
Kansas..........................	336,723	7,620,144	992,496
Kentucky........................	6,704	139,208	20,372
Louisiana.......................	1,024,162	22,906,499	2,600,575
Michigan........................	179,091	3,638,067	460,465
Mississippi.....................	688,258	14,919,501	1,866,164
Montana.........................	3,716,987	74,832,531	8,622,233
Nebraska........................	115,099	2,429,624	308,768
Nevada..........................	4,001,425	63,022,440	8,381,984
New Mexico......................	23,887,162	522,883,766	64,885,368
North Dakota....................	6,915,152	149,647,475	18,304,845
Ohio............................	27,180	576,577	71,534
Oklahoma........................	290,780	6,658,558	754,674
Pennsylvania....................	4,528	102,514	12,774
South Dakota....................	440,881	9,151,425	1,129,315
Texas...........................	251,851	5,640,630	695,146
Utah............................	6,003,862	129,312,726	16,197,948
West Virginia...................	64	1,307	163
Wyoming.........................	67,180,209	1,360,901,033	162,609,989
Subtotal....................	145,938,345	$2,927,745,376	$362,642,855
Oil Lost			
Montana.........................	1	$ 14	$ 2
New Mexico......................	51	845	106
North Dakota....................	9	155	19
Wyoming.........................	392	7,322	915
Subtotal....................	453	$ 8,336	$ 1,042

Table 20.--1990 volume, sales value, and royalties by commodity and State from Federal onshore mineral leases (cont.)

	Production Volume	Sales Value	Royalties Received
Phosphate			
Idaho	4,631,665	$ 67,121,566	$ 3,390,777
Montana	89,850	1,446,058	72,303
Subtotal	4,721,515	$ 68,567,624	$ 3,463,080
Potash			
California	87,754	$ 8,151,988	$ 406,422
New Mexico	1,987,809	154,119,176	3,080,661
Utah	17,708	1,392,428	41,773
Subtotal	2,093,271	$ 163,663,592	$ 3,528,856
Purge Liquor			
Wyoming	(21,783)	$ (29,179)	$ (1,557)
Quartz Crystals			
Arkansas	4,960	$ 25,982	$ 1,299
Sand and Gravel			
Nevada	2,059,556	$ 9,493,026	$ 438,920
Sodium			
California	992,483	$ 111,704,016	$ 5,486,656
New Mexico	536,685	406,771	20,339
Utah	6,708	18,222	474
Wyoming	3,200,484	260,019,835	12,943,292
Subtotal	4,736,360	$ 372,148,844	$ 18,450,761
Sulfur			
Alabama	387	$ 29,310	$ 3,297
Montana	2,547	113,486	7,168
New Mexico	6,951	305,880	14,890
North Dakota	8,230	343,991	32,411
Wyoming	288,346	12,254,695	441,170
Subtotal	306,461	$ 13,047,362	$ 498,936
Trona Ore			
California	6,096	$ 199,208	$ 9,960
Wyoming	17,300	1,153,826	57,691
Subtotal	23,396	$ 1,353,034	$ 67,651
Zinc			
Missouri	60,422	$ 36,503,735	$ 1,298,791
Total		**$9,068,779,097**	**$906,932,447**

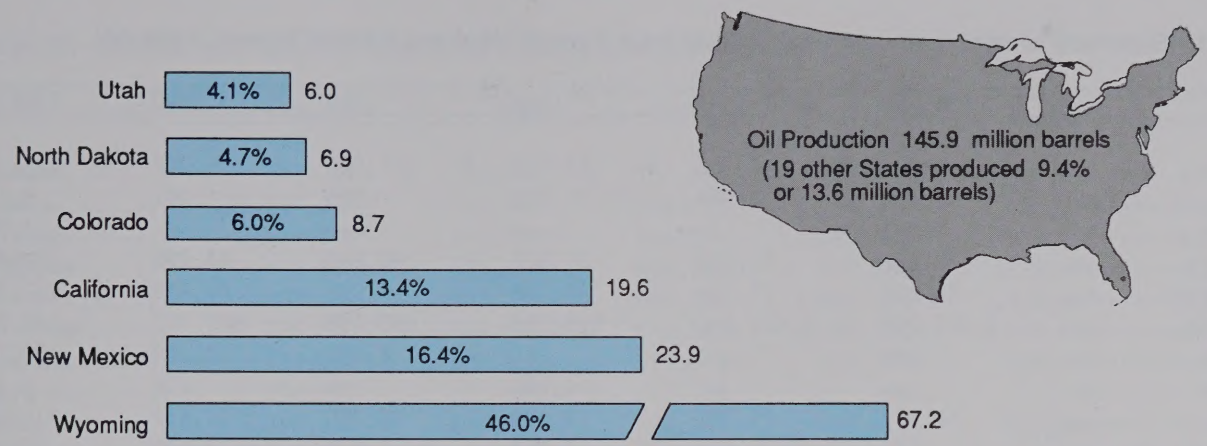


Figure 15. --- Oil production by State, in millions of barrels, from Federal onshore mineral leases, Calendar Year 1990

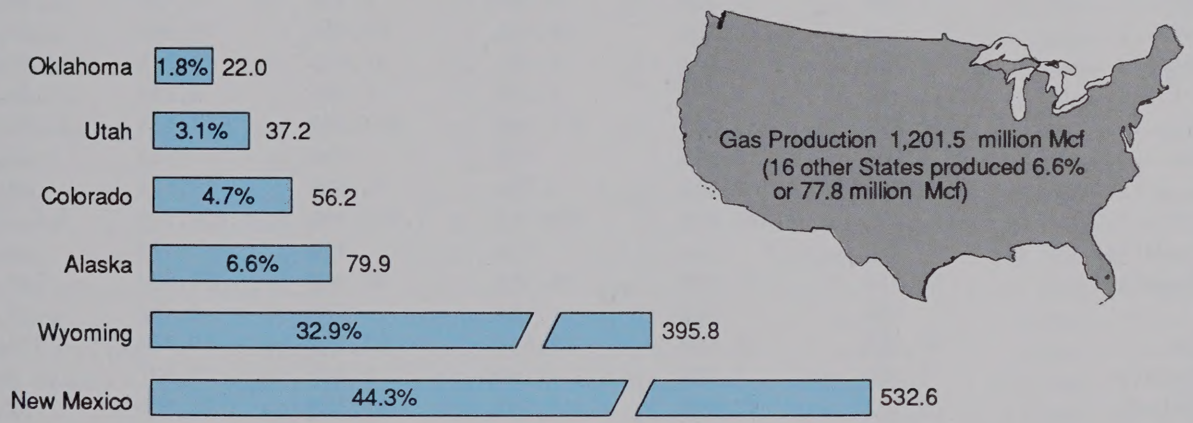


Figure 16. --- Gas production by State, in millions of Mcf, from Federal onshore mineral leases, Calendar Year 1990

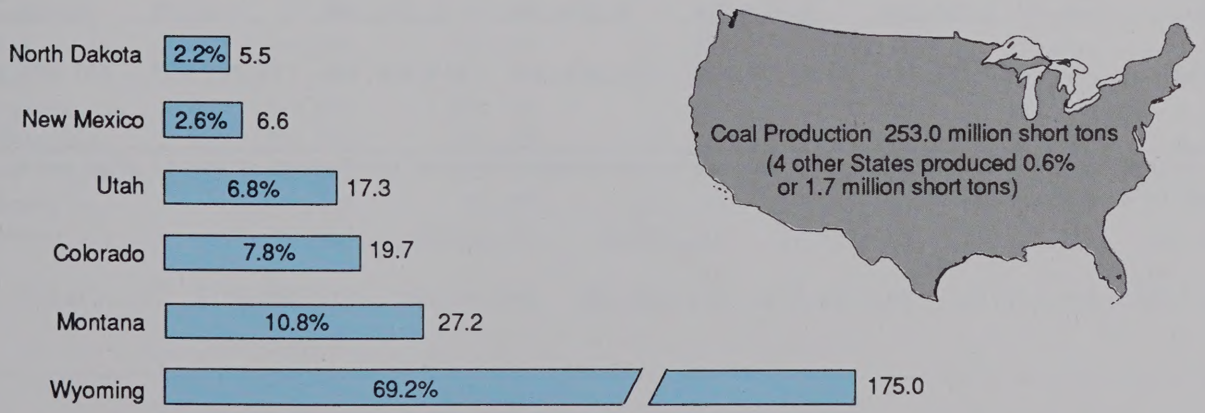


Figure 17. --- Coal production by State, in millions of short tons, from Federal onshore mineral leases, Calendar Year 1990

Table 21.--Summary of minimum royalties by State from Federal onshore mineral leases, 1985-90

	1985-86	1987	1988	1989	1990	1985-90
Alabama...........	$ 32,084	$ 16,360	$ 16,041	$ 24,300	$ 24,360	$ 113,145
Alaska............	2,730	1,947	295	295	391	5,658
Arizona...........	2,083	---	---	---	---	2,083
Arkansas..........	78,597	31,160	37,827	40,245	34,650	222,479
California........	46,262	27,068	26,392	58,939	51,419	210,080
Colorado..........	2,429,257	1,661,646	510,195	633,798	562,331	5,797,227
Florida...........	130	3,601	160	6,859	2,008	12,758
Georgia...........	---	---	1,090	---	218	1,308
Idaho.............	52,579	24,563	70,493	95,780	68,612	312,027
Illinois..........	1,647	549	1,164	1,844	2,278	7,482
Kansas............	6,197	4,071	16,890	9,445	6,905	43,508
Kentucky..........	9,931	6,211	7,661	19,608	9,236	52,647
Louisiana.........	3,052	2,498	34,885	37,206	3,945	81,586
Maryland..........	7,501	1,413	3,659	1,607	1,607	15,787
Michigan..........	5,084	2,192	(3,776)	9,556	1,460	14,516
Minnesota.........	1	170,310	48,660	48,660	48,660	316,291
Mississippi.......	13,926	9,107	2,261	17,406	9,156	51,856
Missouri..........	13,347	6,891	5,707	6,161	4,784	36,890
Montana...........	344,298	413,085	177,646	213,240	214,755	1,363,024
Nebraska..........	1,900	6,356	702	632	953	10,543
Nevada............	4,316	2,521	2,394	11,518	13,636	34,385
New Mexico........	923,716	2,497,894	689,765	1,561,148	1,939,140	7,611,663
North Carolina....	---	---	474	474	474	1,422
North Dakota......	77,414	21,092	46,391	42,003	39,861	226,761
Ohio..............	297	324	141	972	2,442	4,176
Oklahoma..........	42,447	16,665	19,637	15,777	10,719	105,245
Pennsylvania......	5,129	1,691	(768)	1,927	1,927	9,906
South Dakota......	20,511	12,615	15,063	21,118	12,956	82,263
Texas.............	21,609	5,505	4,863	4,532	2,574	39,083
Utah..............	408,893	237,610	277,518	536,782	239,000	1,699,803
Virginia..........	4,336	2,168	2,168	4,298	2,168	15,138
Washington........	---	---	4,840	---	3,630	8,470
West Virginia.....	89,198	40,418	40,793	56,633	45,252	272,294
Wyoming...........	5,055,264	9,149,789	9,218,165	11,113,552	558,526	35,095,296
Total.........	$9,703,736	$14,377,320	$11,279,396	$14,596,315	$3,920,033	$53,876,800

NOTE: Higher revenue totals for selected years represent lump-sum settlement payments that were credited to minimum royalties.

Table 22.--Summary of rents by State from Federal onshore mineral leases, 1985-90

	1985-86	1987	1988	1989	1990	1985-90
Alabama........	$ 471,777	$ 153,280	$ 157,611	$ 222,578	$ 201,072	$ 1,206,318
Alaska.........	10,264,734	2,759,043	2,234,251	2,395,190	1,325,559	18,978,777
Arizona........	3,014,286	961,550	823,574	383,382	334,902	5,517,694
Arkansas.......	1,656,833	401,638	685,003	978,188	1,209,098	4,930,760
California.....	4,808,761	1,601,256	1,696,112	1,663,521	1,434,807	11,204,457
Colorado.......	17,639,540	7,458,601	7,471,013	7,371,890	6,994,458	46,935,502
Florida........	929,960	326,886	311,274	277,669	190,552	2,036,341
Georgia........	100,150	36	36	766	36	101,024
Idaho..........	5,186,310	826,500	629,181	368,402	255,841	7,266,234
Illinois.......	8,841	3,134	1,315	2,398	2,986	18,674
Indiana........	846	415	415	415	415	2,506
Iowa...........	1,440	180	---	---	---	1,620
Kansas.........	121,287	96,116	37,609	27,479	22,381	304,872
Kentucky.......	103,155	37,523	29,366	27,139	21,813	218,996
Louisiana......	504,784	169,248	144,390	148,733	118,818	1,085,973
Maryland.......	8,236	3,406	(758)	496	(269)	11,111
Michigan.......	728,869	460,452	397,514	755,503	639,261	2,981,599
Minnesota......	39,029	20,975	7,586	4,767	4,478	76,835
Mississippi....	1,385,624	578,660	568,985	577,788	579,952	3,691,009
Missouri.......	33,905	6,153	4,416	7,876	13,650	66,000
Montana........	19,827,777	5,605,711	5,022,967	4,508,170	3,672,880	38,637,505
Nebraska.......	334,459	86,091	60,193	47,941	37,157	565,841
Nevada.........	19,779,309	5,194,461	8,040,706	8,539,161	8,732,103	50,285,740
New Mexico.....	18,736,085	6,529,547	6,539,113	6,113,290	4,583,963	42,501,998
New York.......	21,217	8,489	11,022	9,949	8,359	59,036
North Carolina.	97,947	3,350	1,387	3,495	3,351	109,530
North Dakota...	1,315,388	656,173	614,944	541,086	478,468	3,606,059
Ohio...........	66,584	16,670	13,209	16,395	16,832	129,690
Oklahoma.......	971,733	421,289	418,987	516,128	449,089	2,777,226
Oregon.........	6,368,247	1,222,232	1,025,777	584,502	871,148	10,071,906
Pennsylvania...	5,098	8,633	(3,479)	(625)	475	10,102
South Carolina.	2,646	6,582	4,237	3,491	1,034	17,990
South Dakota...	1,692,988	733,654	689,311	550,496	543,111	4,209,560
Tennesse.......	30,326	10,442	9,701	10,834	10,022	71,325
Texas..........	560,383	212,494	181,886	241,954	310,455	1,507,172
Utah...........	22,017,670	7,342,707	7,066,064	7,334,916	7,733,370	51,494,727
Virginia.......	797,897	287,466	147,277	164,227	148,010	1,544,877
Washington.....	2,153,220	733,107	730,338	342,343	83,485	4,042,493
West Virginia..	642,925	270,171	335,525	230,455	218,465	1,697,541
Wisconsin......	76,409	72,967	110,574	45,380	75,262	380,592
Wyoming........	36,755,958	16,162,103	18,592,213	19,565,072	20,727,555	111,802,901
Total......	$179,262,633	$61,449,391	$64,810,845	$64,582,840	$62,054,404	$432,160,113

Table 23.--1990 bonuses paid by State and commodity on sales of Federal onshore mineral leases

	No. of Leases	Acres Leased	Bonuses Paid
Alabama			
Coal..........	1	80	$ 21,101
Oil & Gas.....	27	10,000	256,805
Arizona			
Oil & Gas.....	1	2,558	5,118
Arkansas			
Oil & Gas.....	378	125,348	9,608,941
California			
Oil & Gas.....	21	8,829	53,488
Colorado			
Oil & Gas.....	259	153,995	2,826,593
Idaho			
Phosphate.....	1	161	123,600
Kansas			
Oil & Gas.....	4	800	189,660
Louisiana			
Oil & Gas.....	4	812	4,423
Michigan			
Oil & Gas.....	65	16,340	103,432
Mississippi			
Oil & Gas.....	48	17,170	249,524
Montana			
Oil & Gas.....	70	32,153	199,033
Nebraska			
Oil & Gas.....	1	660	1,320
Nevada			
Geothermal....	1	441	34,614
Oil & Gas.....	121	110,024	1,508,402
New Mexico			
Oil & Gas.....	431	185,032	9,948,217
North Dakota			
Oil & Gas.....	38	6,722	881,007
Oklahoma			
Asphalt.......	2	959	384
Oil & Gas.....	65	28,651	5,614,830
Oregon			
Oil & Gas.....	1	8	16
South Dakota			
Oil & Gas.....	17	10,541	25,732
Texas			
Oil & Gas.....	64	20,122	422,361
Utah			
Coal..........	1	1,987	1,526,400
Virginia			
Oil & Gas.....	8	726	1,530
West Virginia			
Coal..........	1	20	3,000
Wyoming			
Oil & Gas.....	1,579	993,354	17,462,722
Total........	**3,209**	**1,727,493**	**$51,072,253**

NOTE: Fiscal year data from Public Land Statistics, 1990, Bureau of Land Management.

Table 24.--Summary of bonuses paid on sales of Federal onshore mineral leases, 1954-90

	Oil & Gas		Other Minerals		Totals	
	Acres Leased	Bonuses Paid	Acres Leased	Bonuses Paid	Acres Leased	Bonuses Paid
1954.......	7,726	$ 255,912	4,362	$ 59,260	12,088	$ 315,172
1955.......	16,145	833,305	3,319	414,804	19,464	1,248,109
1956.......	21,497	1,241,479	7,608	170,293	29,105	1,411,772
1957.......	182,233	1,197,405	14,663	297,265	196,896	1,494,670
1958.......	10,564	274,432	28,968	1,927,505	39,532	2,201,937
1959.......	32,283	882,831	20,474	305,847	52,757	1,188,678
1960.......	21,947	668,865	11,748	111,291	33,695	780,156
1961.......	27,466	12,395,374	25,863	1,030,725	53,329	13,426,099
1962.......	32,711	7,059,451	41,507	223,379	74,218	7,282,830
1963.......	53,124	2,089,236	54,244	475,288	107,368	2,564,524
1964.......	20,335	649,918	32,290	1,112,824	52,625	1,762,742
1965.......	46,572	1,805,432	30,009	1,072,714	76,581	2,878,146
1966.......	35,453	572,837	48,979	1,071,869	84,432	1,644,706
1967.......	61,665	764,296	47,606	936,656	109,271	1,700,952
1968.......	71,505	972,523	95,303	3,102,240	166,808	4,074,763
1969.......	36,969	754,543	---	---	36,969	754,543
1970.......	38,724	478,890	18,493	370,395	57,217	849,285
1971.......	52,102	1,163,136	28,706	7,627,114	80,808	8,790,250
1972.......	88,326	1,117,543	---	---	88,326	1,117,543
1973.......	89,315	2,203,370	133	33,635	89,448	2,237,005
1974.......	65,247	2,295,623	24,493	449,192,426	89,740	451,488,049
1975.......	112,401	8,202,991	362	3,618	112,763	8,206,609
1976.......	74,616	4,934,208	---	---	74,616	4,934,208
1977.......	80,529	7,820,947	---	---	80,529	7,820,947
1978.......	76,438	12,705,965	574	31,380	77,012	12,737,345
1979.......	62,447	7,597,171	6,475	816,008	68,922	8,413,179
1980.......	71,623	22,048,947	9,897	933,369	81,520	22,982,316
1981.......	126,070	103,314,389	60,034	25,358,616	186,104	128,673,005
1982.......	991,186	95,304,216	352,510	29,966,642	1,343,696	125,270,858
1983.......	131,702	31,150,106	173,694	30,958,099	305,396	62,108,205
1984.......	394,264	49,484,379	17,955	584,422	412,219	50,068,801
1985.......	517,612	47,367,665	4,444	227,094	522,056	47,594,759
1986.......	353,055	26,643,088	38,420	3,565,974	391,475	30,209,062
1987.......	211,488	33,345,494	6,333	1,407,220	217,821	34,752,714
1988.......	1,913,023	51,208,738	75,408	3,523,373	1,988,431	54,732,111
1989.......	2,831,737	62,847,022	26,963	16,746,107	2,858,700	79,593,129
1990.......	1,723,845	49,363,154	3,648	1,709,099	1,727,493	51,072,253
Total..	**10,683,945**	**$653,014,881**	**1,315,485**	**$585,366,551**	**11,999,430**	**$1,238,381,432**

NOTE: Fiscal year data from Public Land Statistics, 1990, Bureau of Land Management.

Indian Mineral Revenues

Royalties from Indian mineral leases increased 24.1 percent, from $122.4 million in 1989 to $152 million in 1990. The increase was primarily associated with oil, gas, and coal (tables 2 and 25, and figure 18). Indian revenues addressed in this publication exclude the Osage Nation which manages all of its Tribal lands and collects its own revenues.

Indian oil production fell 1 percent in 1990; however, oil royalties increased 27.8 percent, or $11.4 million, from $40.8 million in 1989 to $52.2 million in 1990 (figure 18 and table 25). The growth in royalties is attributed to a surge in oil prices during the last half of the year as a result of unrest in the Middle East.

Indian gas production rose 10.9 percent during the year; however, gas royalties increased 20.8 percent, from $24.6 million in 1989 to $29.8 million in 1990 (figure 18 and table 25). The Nation experienced a severe cold snap in December 1989 that accelerated natural gas demand and reduced underground storage supplies. Prices rose in the first quarter of 1990 as suppliers increased production to meet peak seasonal heating demand and to replenish underground storage facilities.

Indian coal production increased 2 percent during the year. Coal royalties, however, jumped 27.5 percent, from $47.7 million in 1989 to $60.8 million in 1990 (figure 18 and table 25). The significant rise in royalties is principally associated with an adjustment to prior period accounting procedures in Arizona and New Mexico.

Royalties from other mineral production fell less than 1 percent, from $9.3 million in 1989 to $9.2 million in 1990 (table 25). The decline was particularly evident in copper, helium, and phosphate. The decline was offset, in part, by increased royalty collections in gas plant products and sand and gravel (table 26).

Receipts from Indian rents collected by the Minerals Management Service fell 69.9 percent, from $1.5 million in 1989 to $438,483 in 1990 (tables 1 and 2). The decline was caused by significant prior period adjustments in Idaho and New Mexico and by a drop in rent collections in Arizona and Oklahoma.

There were 7,439 mineral leases, licenses, permits, and applications on Indian Tribal and allotted lands on 3.3 million acres administered by the Department of the Interior in 1990 (tables 40 and 41). This number includes 4,137 producing or producible Indian oil and gas leases on 1.6 million acres (tables 32 and 33). The figures are generally lower than 1989 leases and acreage.

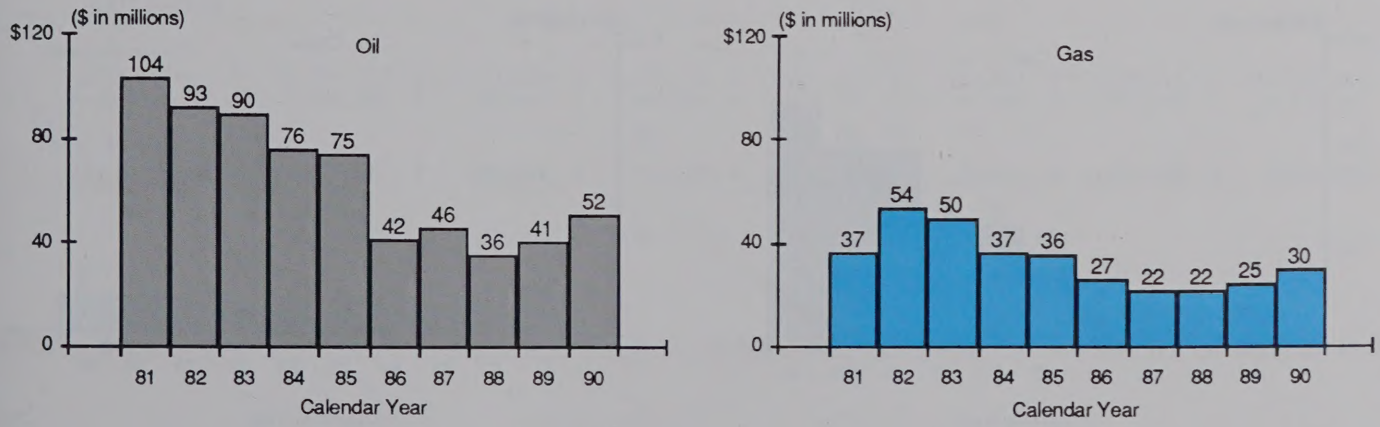


Figure 18. --- Royalties from Indian mineral leases, 1981-90

⇦ **Navajo student on survey team, Navajo Reservation. (Photo courtesy USGS.)**

Participating Indian Tribes

- Absentee Shawnee
- Alabama-Coushatta
- Arapahoe
- Assiniboine Sioux
- Blackfeet
- Caddo
- Campo Band Mission Indians
- Cherokee
- Cheyenne Arapaho
- Cheyenne River Sioux
- Chickasaw
- Chilocco Indian School
- Chippewa-Cree
- Choctaw
- Citizen Band Potawatomi
- Colorado River
- Creek
- Crow
- Delaware
- Ft. Mohave
- Gila River Indian Community
- Hopi
- Jicarilla Apache
- La Posta Band Mission Indians
- Navajo
- Northern Ute
- Pala Band Mission Indians
- Pawnee
- Ponca
- Pyramid Lake Paiute
- Sac and Fox
- Salt River-Pima Maricopa
- Sandia Pueblo
- San Felipe Pueblo
- San Juan Pueblo
- Santa Ana Pueblo
- Seminole
- Shawnee
- Shoshone
- Shoshone Bannock
- Southern Ute
- Three Affiliated Tribes:
  - Arikara
  - Hidatsa
  - Mandan
- Tohono O'dham
- Ute Mountain Ute
- Wichita

Note: The Indian Tribes listed above are served by the Minerals Management Service through the Bureau of Indian Affairs.

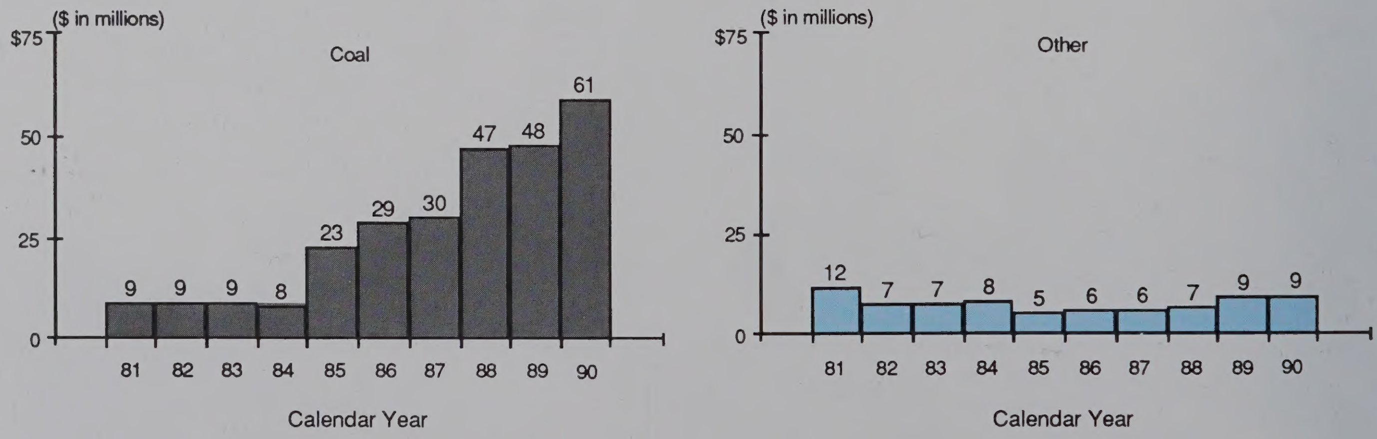


Figure 18. --- Royalties from Indian mineral leases, 1981-90 (cont.)

Table 25.--Summary of volume, sales value, and royalties by State and commodity from Indian mineral leases, 1937-90

	1937-85	1986	1987	1988	1989	1990	1937-90
Alaska							
Gas in Mcf							
Volume	277,556	0	0	0	0	0	277,556
Sales Value	$ 39,269	0	0	0	0	0	$ 39,269
Royalties	$ 6,541	0	0	0	0	0	$ 6,541
Total Royalties							
All Minerals	**$ 6,541**	**0**	**0**	**0**	**0**	**0**	**$ 6,541**

	1937-85	1986	1987	1988	1989	1990	1937-90
Arizona							
Oil in Barrels							
Volume	19,048,598	164,464	135,709	108,734	126,408	117,987	19,701,900
Sales Value	$ 107,434,182	$ 2,589,452	$ 2,330,655	$ 1,654,596	$ 2,185,278	$ 2,429,422	$ 118,623,585
Royalties	$ 17,445,680	$ 423,267	$ 381,290	$ 272,042	$ 360,929	$ 402,942	$ 19,286,150
Gas in Mcf							
Volume	12,842,337	17,294	15,254	7,517	7,640	12,441	12,902,483
Sales Value	$ 2,704,000	$ 11,760	$ 14,963	$ 8,042	$ 10,418	$ 14,700	$ 2,763,883
Royalties	$ 339,720	$ 1,446	$ 1,870	$ 1,005	$ 1,302	$ 1,844	$ 347,187
Coal in Tons							
Volume	129,124,096	11,550,000	11,602,674	12,318,335	11,118,215	12,621,393	188,334,713
Sales Value	$1,400,031,309	$184,684,500	$124,925,051	$238,341,308	$226,502,328	$243,469,458	$2,417,953,954
Royalties	$ 50,553,214	$ 9,078,969	$ 5,887,427	$ 21,739,989	$ 19,374,672	$ 29,236,716	$ 135,870,987
Other Products							
Sales Value	$ 307,035,583	$ 12,161,076	$ 17,927,276	$ 18,141,340	$ 34,554,658	$ 30,679,027	$ 420,498,960
Royalties	$ 30,118,571	$ 1,212,695	$ 2,176,490	$ 2,944,098	$ 4,495,482	$ 4,155,102	$ 45,102,438
Total Royalties							
All Minerals	**$ 98,457,185**	**$ 10,716,377**	**$ 8,447,077**	**$ 24,957,134**	**$ 24,232,385**	**$ 33,796,604**	**$ 200,606,762**

	1937-85	1986	1987	1988	1989	1990	1937-90
California							
Other Products							
Sales Value	$ 22,701,952	$ 2,771,676	$ 3,724,398	$ 3,780,110	$ 792,547	$ 10,398,711	$ 44,169,394
Royalties	$ 2,293,287	$ 346,460	$ 446,928	$ 452,022	$ 46,546	$ 1,291,546	$ 4,876,789
Total Royalties							
All Minerals	**$ 2,293,287**	**$ 346,460**	**$ 446,928**	**$ 452,022**	**$ 46,546**	**$ 1,291,546**	**$ 4,876,789**

Table 25.--Summary of volume, sales value, and royalties by State and commodity from Indian mineral leases, 1937-90 (cont.)

	1937-85	1986	1987	1988	1989	1990	1937-90
Colorado							
Oil in Barrels							
Volume	3,654,759	588,257	318,938	298,018	136,452	124,430	5,120,854
Sales Value	$ 31,737,548	$ 10,310,421	$ 5,198,591	$ 4,785,313	$ 2,293,182	$ 2,543,710	$ 56,868,765
Royalties	$ 4,704,789	$ 1,749,512	$ 954,293	$ 766,856	$ 329,878	$ 332,234	$ 8,837,562
Gas in Mcf							
Volume	513,764,410	17,829,157	18,989,709	20,743,420	24,288,051	36,584,090	632,198,837
Sales Value	$ 280,076,318	$ 34,846,076	$ 37,125,686	$ 37,274,001	$ 36,961,936	$ 56,451,514	$ 482,735,531
Royalties	$ 35,387,180	$ 4,511,366	$ 4,787,410	$ 4,663,647	$ 4,643,232	$ 6,599,683	$ 60,592,518
Coal in Tons							
Volume	1,659	0	0	0	0	0	1,659
Sales Value	$ 7,723	0	0	0	0	0	$ 7,723
Royalties	$ 198	0	0	0	0	0	$ 198
Other Products							
Sales Value	$ 2,300,305	$ 589,285	$ 355,423	$ 99,965	$ 679,729	$ 2,363,452	$ 6,388,159
Royalties	$ 277,259	$ 102,132	$ 54,367	$ 12,344	$ 82,662	$ 279,369	$ 808,133
Total Royalties							
All Minerals	**$ 40,369,426**	**$ 6,363,010**	**$ 5,796,070**	**$ 5,442,847**	**$ 5,055,772**	**$ 7,211,286**	**$ 70,238,411**

	1937-85	1986	1987	1988	1989	1990	1937-90
Florida							
Oil in Barrels							
Volume	4,688	0	0	0	0	0	4,688
Sales Value	$ 51,367	0	0	0	0	0	$ 51,367
Royalties	$ 6,422	0	0	0	0	0	$ 6,422
Other Products							
Sales Value	$ 451,024	0	0	0	0	0	$ 451,024
Royalties	$ 45,103	0	0	0	0	0	$ 45,103
Total Royalties							
All Minerals	**$ 51,525**	**0**	**0**	**0**	**0**	**0**	**$ 51,525**

	1937-85	1986	1987	1988	1989	1990	1937-90
Idaho							
Other Products							
Sales Value	$ 180,087,533	$ 20,026,962	$ 18,231,839	$ 20,562,230	$ 22,681,048	$ 16,439,381	$ 278,028,993
Royalties	$ 15,620,361	$ 2,461,808	$ 2,278,980	$ 2,365,726	$ 2,430,332	$ 1,764,968	$ 26,922,175
Total Royalties							
All Minerals	**$ 15,620,361**	**$ 2,461,808**	**$ 2,278,980**	**$ 2,365,726**	**$ 2,430,332**	**$ 1,764,968**	**$ 26,922,175**

Table 25.--Summary of volume, sales value, and royalties by State and commodity from Indian mineral leases, 1937-90 (cont.)

	1937-85	1986	1987	1988	1989	1990	1937-90
Michigan							
Oil in Barrels							
Volume	37,822	2,127	1,307	1,502	1,911	1,588	46,257
Sales Value	$ 334,636	$ 37,483	$ 22,638	$ 24,240	$ 33,718	$ 35,474	$ 488,189
Royalties	$ 43,127	$ 6,432	$ 2,982	$ 3,550	$ 5,072	$ 5,163	$ 66,326
Gas in Mcf							
Volume	0	1,030	108	22,072	416	98	23,724
Sales Value	0	$ 670	$ 63	$ 21,189	$ 1,016	$ 273	$ 23,211
Royalties	0	$ 28	$ 8	$ 2,649	$ 126	$ 34	$ 2,845
Total Royalties							
All Minerals	**$ 43,127**	**$ 6,460**	**$ 2,990**	**$ 6,199**	**$ 5,198**	**$ 5,197**	**$ 69,171**

	1937-85	1986	1987	1988	1989	1990	1937-90
Minnesota							
Other Products							
Sales Value	$ 178,461	0	0	0	0	0	$ 178,461
Royalties	$ 6,455	0	0	0	0	0	$ 6,455
Total Royalties							
All Minerals	**$ 6,455**	**0**	**0**	**0**	**0**	**0**	**$ 6,455**

	1937-85	1986	1987	1988	1989	1990	1937-90
Montana							
Oil in Barrels							
Volume	88,199,829	1,591,378	1,259,170	1,053,218	994,782	1,038,722	94,137,099
Sales Value	$ 505,566,025	$ 24,436,384	$ 20,179,391	$ 14,936,681	$ 16,531,892	$ 21,939,267	$ 603,589,640
Royalties	$ 68,490,633	$ 3,324,434	$ 2,846,750	$ 2,232,566	$ 2,567,636	$ 3,402,852	$ 82,864,871
Gas in Mcf							
Volume	24,134,005	1,412,892	1,177,288	1,407,422	1,171,877	1,372,922	30,676,406
Sales Value	$ 21,640,203	$ 3,236,678	$ 2,178,272	$ 2,313,424	$ 2,015,268	$ 2,639,673	$ 34,023,518
Royalties	$ 3,281,820	$ 461,908	$ 313,201	$ 330,412	$ 284,935	$ 367,577	$ 5,039,853
Coal in Tons							
Volume	41,814,690	1,168,836	1,231,669	1,926,826	2,614,973	2,730,964	51,487,958
Sales Value	$ 339,530,820	$ 13,378,181	$ 10,987,034	$ 14,990,558	$ 18,855,032	$ 18,422,448	$ 416,164,073
Royalties	$ 20,982,894	$ 812,464	$ 708,859	$ 1,126,593	$ 1,489,332	$ 1,499,932	$ 26,620,074
Other Products							
Sales Value	$ 17,235,190	$ 101,786	$ 4,872	$ 14,601	$ 25,988	$ 29,315	$ 17,411,752
Royalties	$ 1,015,355	$ 15,890	$ 700	$ 910	$ 1,037	$ 1,824	$ 1,035,716
Total Royalties							
All Minerals	**$ 93,770,702**	**$ 4,614,696**	**$ 3,869,510**	**$ 3,690,481**	**$ 4,342,940**	**$ 5,272,185**	**$ 115,560,514**

Table 25.--Summary of volume, sales value, and royalties by State and commodity from Indian mineral leases, 1937-90 (cont.)

	1937-85	1986	1987	1988	1989	1990	1937-90
Nevada							
Other Products							
Sales Value	$ 3,330,226	$ 1,748,149	$ 1,292,587	$ 1,956,496	$ 1,802,814	$ 1,276,614	$ 11,406,886
Royalties	$ 325,924	$ 167,822	$ 102,684	$ 156,701	$ 150,129	$ 103,042	$ 1,006,302
Total Royalties							
All Minerals	**$ 325,924**	**$ 167,822**	**$ 102,684**	**$ 156,701**	**$ 150,129**	**$ 103,042**	**$ 1,006,302**

	1937-85	1986	1987	1988	1989	1990	1937-90
New Mexico							
Oil in Barrels							
Volume	101,537,542	1,803,995	2,363,197	1,932,611	1,490,661	1,358,619	110,486,625
Sales Value	$ 669,222,293	$ 20,201,618	$ 38,333,688	$ 26,333,852	$ 26,109,382	$ 30,130,817	$ 810,331,650
Royalties	$ 93,150,355	$ 2,743,651	$ 5,115,260	$ 3,587,417	$ 3,499,813	$ 4,175,026	$ 112,271,522
Gas in Mcf							
Volume	1,613,422,067	16,225,790	16,571,091	19,053,982	24,707,624	38,505,580	1,728,486,134
Sales Value	$1,155,855,959	$ 47,300,933	$ 35,469,326	$ 36,611,000	$ 42,749,789	$ 67,979,864	$1,385,966,871
Royalties	$ 150,956,195	$ 6,176,038	$ 4,695,317	$ 4,809,241	$ 5,458,029	$ 8,406,848	$ 180,501,668
Coal in Tons							
Volume	147,188,950	10,210,329	11,157,838	11,984,923	13,249,499	12,173,961	205,965,500
Sales Value	$1,136,426,894	$209,236,271	$306,648,588	$237,139,427	$253,595,409	$269,740,481	$2,412,787,070
Royalties	$ 37,801,422	$ 19,585,540	$ 23,885,088	$ 23,825,185	$ 26,813,923	$ 30,054,848	$ 161,966,006
Other Products							
Sales Value	$ 699,428,292	$ 3,223,336	$ 2,749,069	$ 4,732,756	$ 13,064,068	$ 6,087,903	$ 729,285,424
Royalties	$ 100,781,031	$ 399,487	$ 343,865	$ 585,752	$ 1,602,034	$ 948,599	$ 104,660,768
Total Royalties							
All Minerals	**$ 382,689,003**	**$ 28,904,716**	**$ 34,039,530**	**$ 32,807,595**	**$ 37,373,799**	**$ 43,585,321**	**$ 559,399,964**

	1937-85	1986	1987	1988	1989	1990	1937-90
North Dakota							
Oil in Barrels							
Volume	8,934,463	94,303	114,391	127,483	93,598	122,459	9,486,697
Sales Value	$ 46,025,910	$ 1,420,936	$ 1,944,077	$ 1,896,403	$ 1,587,414	$ 2,635,200	$ 55,509,940
Royalties	$ 6,096,236	$ 191,603	$ 272,804	$ 275,635	$ 230,633	$ 395,625	$ 7,462,536
Gas in Mcf							
Volume	10,474,796	30,002	190,826	140,620	136,706	185,369	11,158,319
Sales Value	$ 1,642,755	$ 24,256	$ 124,586	$ 125,150	$ 77,684	$ 174,895	$ 2,169,326
Royalties	$ 211,370	$ 3,324	$ 15,824	$ 16,334	$ 10,165	$ 23,732	$ 280,749
Coal in Tons							
Volume	2,921	0	0	0	0	0	2,921
Sales Value	$ 8,834	0	0	0	0	0	$ 8,834
Royalties	$ 540	0	0	0	0	0	$ 540
Other Products							
Sales Value	$ 5,006,608	$ 1,335	$ 23,955	$ 137,263	$ 82,662	$ 95,961	$ 5,347,784
Royalties	$ 380,308	$ 167	$ 2,994	$ 13,412	$ 8,828	$ 12,191	$ 417,900
Total Royalties							
All Minerals	**$ 6,688,454**	**$ 195,094**	**$ 291,622**	**$ 305,381**	**$ 249,626**	**$ 431,548**	**$ 8,161,725**

Table 25.--Summary of volume, sales value, and royalties by State and commodity from Indian mineral leases, 1937-90 (cont.)

	1937-85	1986	1987	1988	1989	1990	1937-90
Oklahoma							
Oil in Barrels							
Volume	358,704,177	4,086,478	3,764,771	3,221,375	2,926,504	2,447,881	375,151,186
Sales Value	$1,647,616,913	$ 61,392,515	$ 65,121,512	$ 49,782,893	$ 51,139,525	$ 52,876,286	$1,927,929,644
Royalties	$ 208,370,481	$ 8,046,769	$ 8,433,077	$ 6,523,640	$ 7,063,189	$ 7,957,300	$ 246,394,456
Gas in Mcf							
Volume	832,554,807	45,096,525	57,375,400	45,578,928	40,978,372	37,303,356	1,058,887,388
Sales Value	$ 795,755,788	$102,710,719	$ 81,475,935	$ 71,473,941	$ 65,413,470	$ 60,351,360	$1,177,181,213
Royalties	$ 105,346,113	$ 10,172,241	$ 8,636,325	$ 8,464,378	$ 8,105,099	$ 9,300,449	$ 150,024,605
Coal in Tons							
Volume	9,375,686	0	0	0	0	0	9,375,686
Sales Value	$ 37,232,091	0	0	0	0	0	$ 37,232,091
Royalties	$ 1,050,777	0	0	0	0	0	$ 1,050,777
Other Products							
Sales Value	$ 313,427,795	$ 1,321,352	$ 2,602,963	$ 2,742,994	$ 3,315,661	$ 3,632,751	$ 327,043,516
Royalties	$ 24,070,366	$ 139,978	$ 303,188	$ 202,080	$ 255,916	$ 338,679	$ 25,310,207
Total Royalties							
All Minerals	**$ 338,837,737**	**$ 18,358,988**	**$ 17,372,590**	**$ 15,190,098**	**$ 15,424,204**	**$ 17,596,428**	**$ 422,780,045**

	1937-85	1986	1987	1988	1989	1990	1937-90
South Dakota							
Oil in Barrels							
Volume	75,669	841	6,375	6,389	5,781	6,888	101,943
Sales Value	$ 1,155,700	$ 17,038	$ 88,770	$ 72,719	$ 81,431	$ 121,475	$ 1,537,133
Royalties	$ 198,061	$ 3,408	$ 17,754	$ 14,544	$ 16,243	$ 24,295	$ 274,305
Coal in Tons							
Volume	15,876	0	0	0	0	0	15,876
Sales Value	$ 72,302	0	0	0	0	0	$ 72,302
Royalties	$ 3,175	0	0	0	0	0	$ 3,175
Other Products							
Sales Value	$ 5,950,624	0	0	0	0	0	$ 5,950,624
Royalties	$ 474,609	0	0	0	0	0	$ 474,609
Total Royalties							
All Minerals	**$ 675,845**	**$ 3,408**	**$ 17,754**	**$ 14,544**	**$ 16,243**	**$ 24,295**	**$ 752,089**

	1937-85	1986	1987	1988	1989	1990	1937-90
Texas							
Oil in Barrels							
Volume	0	0	0	0	29,655	129,948	159,603
Sales Value	0	0	0	0	$ 548,322	$ 2,964,277	$ 3,512,599
Royalties	0	0	0	0	$ 68,540	$ 555,390	$ 623,930
Gas in Mcf							
Volume	0	0	0	0	256,610	1,329,895	1,586,505
Sales Value	0	0	0	0	$ 397,745	$ 2,433,707	$ 2,831,452
Royalties	0	0	0	0	$ 50,116	$ 443,073	$ 493,189
Total Royalties							
All Minerals	**0**	**0**	**0**	**0**	**$ 118,656**	**$ 998,463**	**$ 1,117,119**

Table 25.--Summary of volume, sales value, and royalties by State and commodity from Indian mineral leases, 1937-90 (cont.)

	1937-85	1986	1987	1988	1989	1990	1937-90
Utah							
Oil in Barrels							
Volume	391,226,853	8,182,235	7,800,045	7,161,520	6,762,666	7,193,799	428,327,118
Sales Value	$2,923,143,699	$128,820,858	$138,514,859	$109,382,351	$125,647,412	$161,668,148	$3,587,177,327
Royalties	$ 439,742,797	$ 18,824,315	$ 19,858,199	$ 16,217,370	$ 18,919,988	$ 24,880,001	$ 538,442,670
Gas in Mcf							
Volume	273,532,962	6,896,952	6,953,376	4,828,629	6,419,454	4,820,609	303,451,982
Sales Value	$ 214,590,288	$ 16,523,387	$ 13,800,057	$ 9,691,972	$ 13,196,980	$ 12,849,810	$ 280,652,494
Royalties	$ 32,654,170	$ 2,322,417	$ 2,015,060	$ 1,586,466	$ 2,005,646	$ 2,187,760	$ 42,771,519
Other Products							
Sales Value	$ 163,306,625	$ 6,771,898	$ 3,480,708	$ 2,774,385	$ 1,753,902	$ 2,658,367	$ 180,745,885
Royalties	$ 10,082,362	$ 985,901	$ 499,509	$ 311,171	$ 206,018	$ 297,327	$ 12,382,288
Total Royalties							
All Minerals	**$ 482,479,329**	**$ 22,132,633**	**$ 22,372,768**	**$ 18,115,007**	**$ 21,131,652**	**$ 27,365,088**	**$ 593,596,477**

	1937-85	1986	1987	1988	1989	1990	1937-90
Washington							
Gas in Mcf							
Volume	2,939	0	0	0	0	0	2,939
Sales Value	$ 1,170	0	0	0	0	0	$ 1,170
Royalties	$ 146	0	0	0	0	0	$ 146
Other Products							
Sales Value	$ 48,660,404	$ 63,732	$ 33,456	$ 33,261	$ 27,620	$ 520,108	$ 49,338,581
Royalties	$ 5,021,901	$ 7,967	$ 4,182	$ 4,264	$ 3,615	$ 49,958	$ 5,091,887
Total Royalties							
All Minerals	**$ 5,022,047**	**$ 7,967**	**$ 4,182**	**$ 4,264**	**$ 3,615**	**$ 49,958**	**$ 5,092,033**

	1937-85	1986	1987	1988	1989	1990	1937-90
Wisconsin							
Other Products							
Sales Value	$ 40,711	0	0	0	0	0	$ 40,711
Royalties	$ 3,271	0	0	0	0	0	$ 3,271
Total Royalties							
All Minerals	**$ 3,271**	**0**	**0**	**0**	**0**	**0**	**$ 3,271**

Table 25.--Summary of volume, sales value, and royalties by State and commodity from Indian mineral leases, 1937-90 (cont.)

	1937-85	1986	1987	1988	1989	1990	1937-90
Wyoming							
Oil in Barrels							
Volume	241,326,302	3,463,830	3,225,966	2,965,278	2,903,945	2,775,325	256,660,646
Sales Value	$1,251,394,952	$ 45,987,552	$ 50,040,829	$ 38,141,657	$ 43,644,439	$ 53,113,393	$1,482,322,822
Royalties	$ 176,985,399	$ 7,106,979	$ 7,931,388	$ 6,153,059	$ 7,773,964	$ 10,076,457	$ 216,027,246
Gas in Mcf							
Volume	306,965,458	10,215,245	6,272,923	11,330,346	16,485,447	6,825,391	358,094,810
Sales Value	$ 210,688,160	$ 22,678,369	$ 12,418,389	$ 17,838,303	$ 29,708,116	$ 16,831,502	$ 310,162,839
Royalties	$ 31,257,771	$ 3,615,217	$ 1,775,283	$ 2,617,909	$ 4,074,330	$ 2,419,975	$ 45,760,485
Other Products							
Sales Value	$ 6,161,853	$ 213,547	$ 263,178	$ 54,103	$ 9,689	$ 3,811	$ 6,706,181
Royalties	$ 580,334	$ 27,023	$ 38,227	$ 3,701	$ 411	$ 527	$ 650,223
Total Royalties							
All Minerals	**$ 208,823,504**	**$ 10,749,219**	**$ 9,744,898**	**$ 8,774,669**	**$ 11,848,705**	**$ 12,496,959**	**$ 262,437,954**

	1937-85	1986	1987	1988	1989	1990	1937-90
Indian Totals							
Oil in Barrels							
Volume	1,212,750,702	19,977,908	18,989,869	16,876,128	15,472,363	15,317,646	1,299,384,616
Sales Value	$7,183,683,225	$295,214,257	$321,775,010	$247,010,705	$269,801,995	$330,457,469	$8,647,942,661
Royalties	$1,015,233,980	$ 42,420,370	$ 45,813,797	$ 36,046,679	$ 40,835,885	$ 52,207,285	$1,232,557,996
Gas in Mcf							
Volume	3,587,971,337	97,724,887	107,545,975	103,112,936	114,452,197	126,939,751	4,137,747,083
Sales Value	$2,682,993,910	$227,332,848	$182,607,277	$175,357,022	$190,532,422	$219,727,298	$3,678,550,777
Royalties	$ 359,441,026	$ 27,263,985	$ 22,240,298	$ 22,492,041	$ 24,632,980	$ 29,750,975	$ 485,821,305
Coal in Tons							
Volume	327,523,878	22,929,165	23,992,181	26,230,084	26,982,687	27,526,318	455,184,313
Sales Value	$2,913,309,973	$407,298,952	$442,560,673	$490,471,293	$498,952,769	$531,632,387	$5,284,226,047
Royalties	$ 110,392,220	$ 29,476,973	$ 30,481,374	$ 46,691,767	$ 47,677,927	$ 60,791,496	$ 325,511,757
Other Products							
Sales Value	$1,775,303,186	$ 48,994,134	$ 50,689,724	$ 55,029,504	$ 78,790,386	$ 74,185,401	$2,082,992,335
Royalties	$ 191,096,497	$ 5,867,330	$ 6,252,114	$ 7,052,181	$ 9,283,010	$ 9,243,132	$ 228,794,264
Total Royalties							
All Minerals	**$1,676,163,723**	**$105,028,658**	**$104,787,583**	**$112,282,668**	**$122,429,802**	**$151,992,888**	**$2,272,685,322**

Table 26.--1990 volume, sales value, and royalties by commodity and State from Indian mineral leases

	Production Volume	Sales Value	Royalties Received
Chat			
Oklahoma	256,983	$ 256,983	$ 77,081
Coal			
Arizona	12,621,393	$ 243,469,458	$ 29,236,716
Montana	2,730,964	18,422,448	1,499,932
New Mexico	12,173,961	269,740,481	30,054,848
Subtotal	27,526,318	$ 531,632,387	$ 60,791,496
Copper			
Arizona	48,854	$ 24,049,508	$ 3,117,029
Gas			
Arizona	12,441	$ 14,700	$ 1,844
Colorado	36,584,090	56,451,514	6,599,683
Michigan	98	273	34
Montana	1,372,922	2,639,673	367,577
New Mexico	38,505,580	67,979,864	8,406,848
North Dakota	185,369	174,895	23,732
Oklahoma	37,303,356	60,351,360	9,300,449
Texas	1,329,895	2,433,707	443,073
Utah	4,820,609	12,849,810	2,187,760
Wyoming	6,825,391	16,831,502	2,419,975
Subtotal	126,939,751	$ 219,727,298	$ 29,750,975
Gas Lost			
New Mexico	(25,537)	$ (44,123)	$ (5,066)
Gas Plant Products			
Colorado	6,095,554	$ 2,363,452	$ 279,369
Montana	97,262	29,315	1,824
New Mexico	215,827	991,443	92,407
North Dakota	496,195	95,961	12,191
Oklahoma	8,424,762	2,291,872	218,015
Utah	8,822,610	2,651,449	296,449
Wyoming	14,767	3,811	527
Subtotal	24,166,977	$ 8,427,303	$ 900,782
Helium			
New Mexico	327,445	$ 123,789	$ 20,632

Table 26.--1990 volume, sales value, and royalties by commodity and State from Indian mineral leases

	Production Volume	Sales Value	Royalties Received
Limestone			
Oklahoma	144,593	$ 571,142	$ 15,905
Oil			
Arizona	117,987	$ 2,429,422	$ 402,942
Colorado	124,430	2,543,710	332,234
Michigan	1,588	35,474	5,163
Montana	1,038,722	21,939,267	3,402,852
New Mexico	1,358,619	30,130,817	4,175,026
North Dakota	122,459	2,635,200	395,625
Oklahoma	2,447,881	52,876,286	7,957,300
South Dakota	6,888	121,475	24,295
Texas	129,948	2,964,277	555,390
Utah	7,193,799	161,668,148	24,880,001
Wyoming	2,775,325	53,113,393	10,076,457
Subtotal	15,317,646	$ 330,457,469	$ 52,207,285
Oil Lost			
Utah	521	$ 6,918	$ 878
Phosphate			
Idaho	1,113,726	$ 16,439,381	$ 1,764,968
Sand and Gravel			
Arizona	1,895,922	$ 5,848,527	$ 1,022,410
California	1,776,588	10,398,711	1,291,546
Nevada	317,921	1,276,614	103,041
New Mexico	1,419,120	5,016,794	840,627
Oklahoma	231,219	512,754	27,678
Washington	159,332	520,108	49,958
Subtotal	5,800,102	$ 23,573,508	$ 3,335,260
Silica Sand			
Arizona	35,085	$ 780,992	$ 15,663
Total		**$1,156,002,555**	**$151,992,888**

Distribution of Federal and Indian Mineral Revenues

Revenues collected from mineral leasing on Federal lands were distributed to States, to the General Fund of the U.S. Treasury, and to a number of designated special-purpose accounts administered by Federal Agencies. Revenues collected from Indian leases were disbursed by the Bureau of Indian Affairs (BIA) to the appropriate Indian Tribes and allottees. Formulas for these disbursements are established by law.

The General Fund of the U.S. Treasury received 52 percent, or $2.1 billion, of all revenues in Fiscal Year (FY) 1990. Payments to three special-purpose accounts amounted to $1.3 billion, or 33.3 percent, of total mineral revenues. Another $452.2 million, or 11.2 percent, was disbursed to 26 States. Indian revenues directed to Tribal governments and individual allotment owners equaled 3.5 percent, or $141.1 million, in FY 1990 (figure 19).

The Mineral Lands Leasing Act of 1920 provides that States whose boundaries encompass Federal public domain mineral leases will share in the revenues from those leases. Royalty, rental, and bonus revenues totaling $452.2 million were distributed to 26 mineral producing States in FY 1990. Six western States, including California, Colorado, Montana, New Mexico, Utah, and Wyoming, received 92.8 percent of the funds (figure 20 and table 27).

The periodic disbursement of all mineral royalty, rent, and bonus receipts is governed by legislation and regulations. All mineral revenues shared with the States have been disbursed each month since October 1, 1983, under the provisions of section 104 of the Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA). Tribal and allottee revenues are processed on a daily basis and distributed to BIA for disbursement to Indian accounts as quickly as possible after receipt.

The Department must pay interest to States on royalties that were not disbursed in a timely manner in accordance with section 111 of FOGRMA. Interest paid in FY 1990 totaled $176,586. The Minerals Management Service (MMS) deposits Indian revenues in a Federal Reserve Bank account, where they are invested and subsequently distributed to Tribes and allottees by BIA. Over the past several years all deposits have been made in a timely manner, so MMS has incurred no interest obligation.

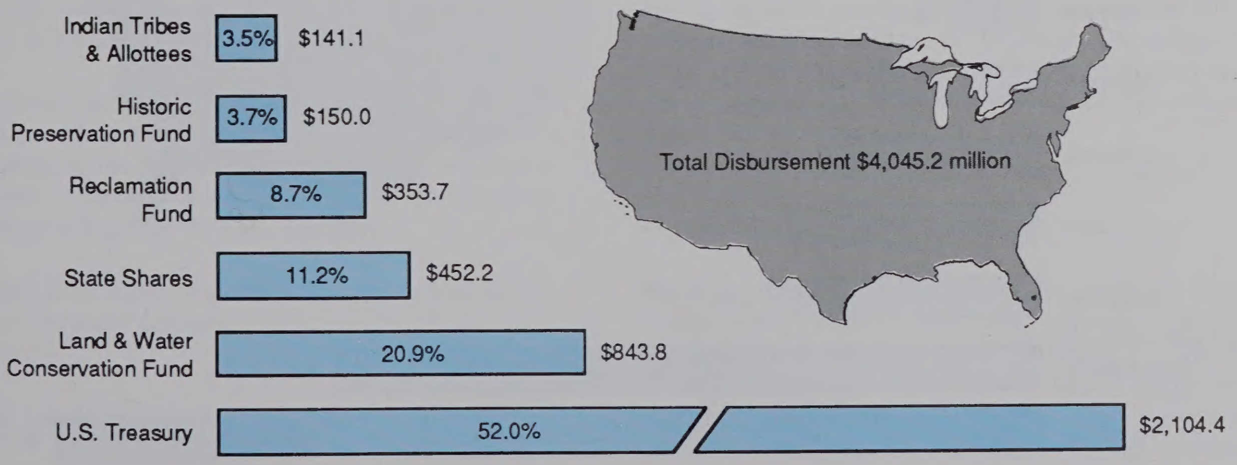


Figure 19. — Disbursement of mineral revenues, in millions, from Federal and Indian mineral leases, Fiscal Year 1990

Pipeline under construction to transport crude oil. (Photo courtesy Exxon Corporation.)

Outer Continental Shelf Lands

Royalty, rent, and bonus revenues from Federal offshore leases on the Outer Continental Shelf (OCS) are distributed to the Land and Water Conservation Fund, the Historic Preservation Fund, and the General Fund of the U.S. Treasury. Transfers are made in each fiscal year from OCS royalties, rents, and bonuses in order to maintain the Land and Water Conservation Fund's annual authorization of $900 million. These transfers amounted to $862.8 million in FY 1989 and $843.8 million in FY 1990. Transfers to the Historic Preservation Fund from OCS royalties, rents, and bonuses amounted to $150 million annually between FY 1982-90. The balance of offshore revenue receipts is directed into the General Fund of the U.S. Treasury (figure 19).

Section 8(g) of the Outer Continental Shelf Lands Act Amendments of 1978 provided that the States were to receive a "fair and equitable" division of revenues generated from the leasing of lands within 3 miles of the seaward boundary of a coastal State that contains one or more oil and gas pools or fields underlying both the OCS and lands subject to the jurisdiction of the State. The States and the Federal Government, however, were unable to reach agreement concerning the meaning of the term "fair and equitable." Revenues generated in the 3-mile boundary were subsequently placed into an escrow fund beginning in August 1979.

Revenues from the Beaufort Sea in Alaska were placed in a second escrow fund under section 7 beginning in December 1979.

Congress resolved the dispute over the meaning of "fair and equitable" in the Outer Continental Shelf Lands Act Amendments of 1985, Public Law 99-272. The law provided for the following distribution of revenues to the States under section 8(g):

- o Escrow funds disbursed in FY 1986-87;
- o A series of annual settlement payments to be disbursed to the States over a 15-year period from FY 1987-2001; and
- o Recurring annual disbursements of 27 percent of royalty, rent, and bonus revenues received within each affected State's 8(g) zone.

Congress passed a second law, Public Law 100-202, permitting distribution of $322.9 million of the section 7 Beaufort Sea escrow funds to the State of Alaska in FY 1988 (table 28).

A total of $49 million in OCS royalties and escrow funds was released to seven States in FY 1990 as part of the settlement under the provisions of the Outer Continental Shelf Lands Act Amendments of 1985 (figure 21 and table 28).

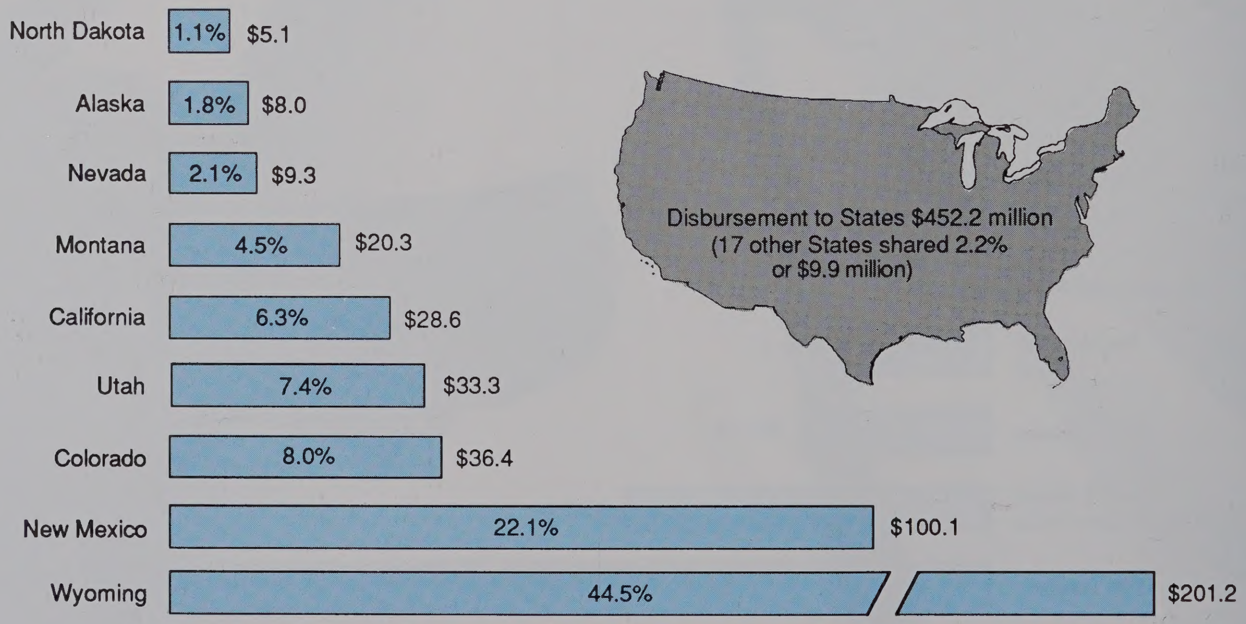


Figure 20. --- Disbursement to States of royalties and other revenues, in millions, Fiscal Year 1990

Public Lands

The royalty revenues collected from public lands leases are distributed directly to States or paid into either special-purpose accounts or the General Fund of the U.S. Treasury. States other than Alaska receive 50 percent of all royalties, rents, and bonuses collected from any public lands leases located within their respective boundaries. Forty percent of the remaining mineral revenues from public lands leases is deposited in the Reclamation Fund, and 10 percent is directed into the General Fund of the U.S. Treasury.

Alaska receives 90 percent of all royalties, rents, and bonuses paid for mineral production on public lands leases in Alaska after deduction of payments under the provisions of the Alaska Native Claims Settlement Act of 1971. The State further receives 50 percent of all royalties, rents, and bonuses collected from mineral production in the National Petroleum Reserve of Alaska.

Acquired Lands

The MMS collects all royalties, rents, and bonuses for leases issued under the 1947 Mineral Leasing Act for acquired lands on behalf of a number of Federal Agencies. Revenues are disbursed according to law.

Seventy-five percent of royalty revenues from leases within a national forest or national grassland administered by the U.S. Department of Agriculture are distributed to the General Fund of the U.S. Treasury. Twenty-five percent of royalty revenues from a national forest are distributed to the State in which the mineral resource is produced. Twenty-five percent of royalty revenues from a national grassland are distributed to the county in which the mineral resource is produced.

Seventy-five percent of royalty revenues from lands administered by the U.S. Army Corps of Engineers are distributed to the State in which the mineral resource is produced, with the remaining 25 percent distributed to the General Fund of the U.S. Treasury.

Receipts from other acquired lands are deposited in a general Treasury account.

Indian Lands

The BIA collects rents and bonuses from nonproducing leases. Royalties and rents from producing Indian Tribal and allottee lands leases are distributed by MMS to BIA, which in turn makes disbursements to the Tribes and to individual Indian allottees with the following two exceptions:

o Payments to three Tribes--the Jicarilla Apache, Blackfeet, and Southern Ute Tribes--are made directly by the lease payor to financial institutions contracted by the Tribes to receive their mineral payments.

o Certain individual Indian allottees have requested and received permission from BIA for lease payors to make direct payment to the allottees.

The Osage Nation manages all mineral leases on its Tribal lands and collects its own revenues.

Payments to the Cook Inlet Region, Inc. (CIRI), in Alaska are made directly by payors to the corporation (table 29). The MMS receives a Report of Sales and Royalty Remittance, Form MMS-2014, from the payor describing the amount of funds paid to CIRI.

The Federal Government and CIRI were in disagreement with the State of Alaska concerning the ownership of nine mineral leases located in Alaska. The Associate Solicitor, Division of Indian Affairs, ruled that disputed revenues from mineral production on the nine leases should be placed into an escrow fund by BIA and MMS until the disagreement could be resolved.

The Federal Government, CIRI, and the State of Alaska signed a settlement agreement in 1990. Under the terms of the agreement, nearly $8.8 million in revenues accrued in the escrow account from 1985-90 was divided among the three parties (table 29). Ten percent of the revenue was paid to the U.S. Treasury. The remaining 90 percent of the funds was paid to the State of Alaska which, pursuant to the agreement, divided the revenues with CIRI.

Military Lands

Royalty revenues collected from military lands leases issued before 1981 are deposited in the General Fund of the U.S. Treasury. Royalty revenue collections for leases issued beginning January 1, 1981, are handled in the same manner as revenues from public lands leases. Royalty revenues from all military lands leases amounted to $4.5 million in 1990.

Table 27.--Summary of mineral revenue shares distributed to the States by the Minerals Management Service and the Bureau of Land Management from Federal onshore mineral leases, 1920-90

	State Shares by Fiscal Year in Thousands of Dollars					
	1920-80	1981	1982	1983	1984	1985
Alabama.........	$ 313	$ 36	$ 223	$ 550	$ 250	$ 200
Alaska..........	130,695	18,865	44,380	15,279	20,906	23,937
Arizona.........	8,158	4,802	4,872	3,017	1,956	1,129
Arkansas........	1,658	283	21,614	652	712	718
California......	182,280	24,634	35,440	25,349	49,307	41,833
Colorado........	259,598	24,939	42,807	38,323	47,049	42,751
Florida.........	230	165	17	234	207	73
Idaho...........	15,772	3,284	5,015	3,344	3,834	3,766
Kansas..........	6,003	669	1,022	625	823	761
Louisiana.......	6,920	612	617	637	905	795
Michigan........	274	54	70	41	201	44
Minnesota*......	---	---	---	1	1	2
Mississippi.....	270	39	7,422	40	538	1,073
Montana.........	94,526	13,110	18,024	20,611	22,295	21,140
Nebraska........	561	148	220	169	325	320
Nevada..........	30,785	10,291	12,595	10,216	8,484	9,903
New Mexico......	576,659	128,127	146,813	118,815	131,935	149,878
North Dakota....	12,828	4,094	7,007	9,729	10,464	9,482
Ohio*...........	---	---	---	---	3	---
Oklahoma........	10,677	2,238	2,211	1,226	2,160	2,916
Oregon..........	1,635	1,084	4,416	2,975	1,983	1,761
South Dakota....	5,260	751	1,280	1,157	917	1,227
Tennessee*......	---	---	---	8	5	---
Texas*..........	---	---	---	1	9	11
Utah............	134,175	21,391	80,916	32,377	32,084	34,771
Virginia........	---	---	---	---	---	---
Washington......	294	48	583	728	695	640
West Virginia...	---	---	---	---	---	28
Wisconsin*......	---	---	---	---	---	---
Wyoming.........	774,620	119,956	172,096	168,255	204,598	199,778
Total.......	$2,254,191	$379,620	$609,660	$454,359	$542,646	$548,937

Table 27.--Summary of mineral revenue shares distributed to the States by the Minerals Management Service and the Bureau of Land Management from Federal onshore mineral leases, 1920-90

State Shares by Fiscal Year in Thousands of Dollars						
1986	1987	1988	1989	1990	1920-90	
$ 252	$ 152	$ 89	$ 221	$ 991	$ 3,277	Alabama
18,143	13,044	8,042	9,429	8,048	310,768	Alaska
723	529	386	242	174	25,988	Arizona
624	309	517	7,775	876	35,738	Arkansas
33,080	27,829	25,526	24,412	28,583	498,273	California
41,847	37,033	31,176	32,616	36,356	634,495	Colorado
91	28	4	186	56	1,291	Florida
2,106	1,364	2,340	1,935	1,969	44,729	Idaho
874	1,359	929	830	1,226	15,121	Kansas
555	517	545	452	542	13,097	Louisiana
40	56	173	668	724	2,345	Michigan
3	3	2	---	---	12	Minnesota
513	184	104	74	86	10,343	Mississippi
17,998	27,407	26,068	19,958	20,318	301,455	Montana
269	170	156	115	127	2,580	Nebraska
7,020	5,136	6,266	9,287	9,283	119,266	Nevada
107,313	75,478	91,698	88,306	100,120	1,715,142	New Mexico
7,441	6,814	5,738	4,985	5,065	83,647	North Dakota
---	---	---	5	13	21	Ohio*
2,575	1,596	1,621	1,912	1,817	30,949	Oklahoma
1,213	687	565	291	371	16,981	Oregon
985	905	822	669	695	14,668	South Dakota
---	---	---	---	---	13	Tennessee*
9	7	8	5	114	164	Texas*
27,574	24,235	30,624	53,035	33,304	504,486	Utah
---	18	18	20	20	76	Virginia
326	280	232	208	155	4,189	Washington
---	---	---	---	---	28	West Virginia
---	1	1	---	---	2	Wisconsin*
152,872	151,889	163,908	175,786	201,151	2,484,909	Wyoming
$424,446	**$377,030**	**$397,558**	**$433,422**	**$452,184**	**$6,874,053**	**Total**

---

*Cumulative totals for these and certain other States may not include some small revenue shares that were disbursed during the previous decades.

NOTE: Numbers represent actual payments to the States and not allocations. Mandated distributions to the States are based on percentage shares in royalties, bonuses, and other mineral revenue collections. Interest accrued for late disbursements to the States is included in the 1986-90 shares.

SOURCES: Minerals Management Service records and Bureau of Land Management Public Land Statistics.

Table 28.--Distribution of OCS rents, bonuses, royalties, escrow funds, and settlement payments under the provisions of the OCS Lands Act Amendments of 1985, Public Law 99-272, Fiscal Years 1986-90

	1986	1987	1988	1989	1990	1986-90
Alabama						
Rents...............	$ 66,153	$ 66,188	$ 70,646	$ 62,710	$ 68,916	$ 334,613
Bonuses.............	116,387	---	---	344,347	198,296	659,030
Royalties...........	---	---	---	---	---	---
Section 8(g) Escrow..	66,000,000	---	---	---	---	66,000,000
Settlement Payments..	---	210,000	210,000	210,000	210,000	840,000
Total............	**$ 66,182,540**	**$ 276,188**	**$ 280,646**	**$ 617,057**	**$ 477,212**	**$ 67,833,643**
Alaska						
Rents...............	$ 438,090	$ 400,730	$ 426,226	$ 402,625	$ 366,687	$ 2,034,358
Bonuses.............	---	---	1,442,533	---	---	1,442,533
Royalties...........	---	---	---	---	---	---
Section 7 Escrow.....	---	---	322,900,000	---	---	322,900,000
Section 8(g) Escrow..	51,000,000	---	---	---	---	51,000,000
Settlement Payments..	---	4,020,000	4,020,000	4,020,000	4,020,000	16,080,000
Total............	**$ 51,438,090**	**$ 4,420,730**	**$328,788,759**	**$ 4,422,625**	**$ 4,386,687**	**$ 393,456,891**
California						
Rents...............	$ 217,447	$ 71,178	$ 94,003	$ 93,958	$ 89,455	$ 566,041
Bonuses.............	---	---	---	---	9	9
Royalties...........	---	687,637	2,154,559	2,039,740	2,665,468	7,547,404
Section 8(g) Escrow..	338,000,000	---	---	---	---	338,000,000
Settlement Payments..	---	8,670,000	8,670,000	8,670,000	8,670,000	34,680,000
Total............	**$338,217,447**	**$ 9,428,815**	**$ 10,918,562**	**$10,803,698**	**$11,424,932**	**$ 380,793,454**
Florida						
Rents...............	---	---	$ 419	$ 15,521	$ 45,153	$ 61,093
Bonuses.............	---	---	---	280,788	1,935,249	2,216,037
Royalties...........	---	---	---	---	---	---
Section 8(g) Escrow..	$ 30,000	---	---	---	---	30,000
Settlement Payments..	---	---	---	---	---	---
Total............	**$ 30,000**	**---**	**$ 419**	**$ 296,309**	**$ 1,980,402**	**$ 2,307,130**

Table 28.--Distribution of OCS rents, bonuses, royalties, escrow funds, and settlement payments under the provisions of the OCS Lands Act Amendments of 1985, Public Law 99-272, Fiscal Years 1986-90

	1986	1987	1988	1989	1990	1986-90
Louisiana						
Rents................	$ 610,567	$ 148,578	$ 153,561	$ 175,817	$ 430,198	$ 1,518,721
Bonuses.............	1,912,734	3,150,519	5,528,006	2,890,298	5,570,375	19,051,932
Royalties...........	66,176,203	11,043,115	8,708,079	7,163,105	6,239,368	99,329,870
Section 8(g) Escrow..	---	572,000,000	---	---	---	572,000,000
Settlement Payments..	---	2,520,000	2,520,000	2,520,000	2,520,000	10,080,000
Total............	**$ 68,699,504**	**$588,862,212**	**$ 16,909,646**	**$12,749,220**	**$14,759,941**	**$ 701,980,523**
Mississippi						
Rents................	$ 12,018	$ 16,200	$ 14,195	$ 19,579	$ 18,605	$ 80,597
Bonuses.............	---	---	---	---	28,123	28,123
Royalties...........	---	---	---	---	---	---
Section 8(g) Escrow..	14,000,000	---	---	---	---	14,000,000
Settlement Payments..	---	60,000	60,000	60,000	60,000	240,000
Total............	**$ 14,012,018**	**$ 76,200**	**$ 74,195**	**$ 79,579**	**$ 106,728**	**$ 14,348,720**
Texas						
Rents................	$ 377,434	$ 244,936	$ 217,111	$ 293,005	$ 316,298	$ 1,448,784
Bonuses.............	---	770,881	2,521,470	6,444,999	3,735,162	13,472,512
Royalties...........	45,229,425	4,983,062	6,120,277	7,078,459	7,799,965	71,211,188
Section 8(g) Escrow..	382,000,000	---	---	---	---	382,000,000
Settlement Payments..	---	4,020,000	4,020,000	4,020,000	4,020,000	16,080,000
Total............	**$427,606,859**	**$ 10,018,879**	**$ 12,878,858**	**$17,836,463**	**$15,871,425**	**$ 484,212,484**
OCS Totals						
Rents................	$ 1,721,709	$ 947,810	$ 976,161	$ 1,063,215	$ 1,335,312	$ 6,044,207
Bonuses.............	2,029,121	3,921,400	9,492,009	9,960,432	11,467,214	36,870,176
Royalties...........	111,405,628	16,713,814	16,982,915	16,281,304	16,704,801	178,088,462
Section 7 Escrow.....	---	---	322,900,000	---	---	322,900,000
Section 8(g) Escrow..	851,030,000	572,000,000	---	---	---	1,423,030,000
Settlement Payments..	---	19,500,000	19,500,000	19,500,000	19,500,000	78,000,000
Total............	**$966,186,458**	**$613,083,024**	**$369,851,085**	**$46,804,951**	**$49,007,327**	**$2,044,932,845**

Table 29.--Direct payments by payors to Cook Inlet Region, Inc., and revenues placed into an escrow account by the Bureau of Indian Affairs and the Minerals Management Service from Federal onshore mineral leases, Fiscal Years 1984-90

	Direct Payments	Escrow Account
1984	$ 8,918,595	$ ---
1985	14,106,317	545
1986	16,365,598	348
1987	10,705,234	392,520
1988	9,624,187	2,895,012
1989	11,776,451	3,880,798
1990	7,212,441	1,581,308
Total	$78,708,823	$8,750,531

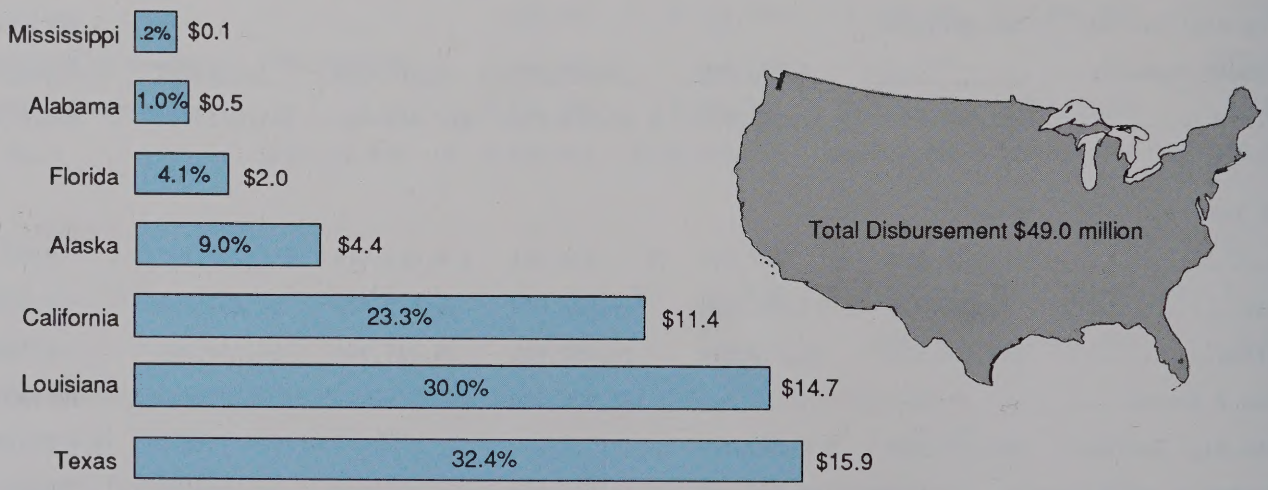


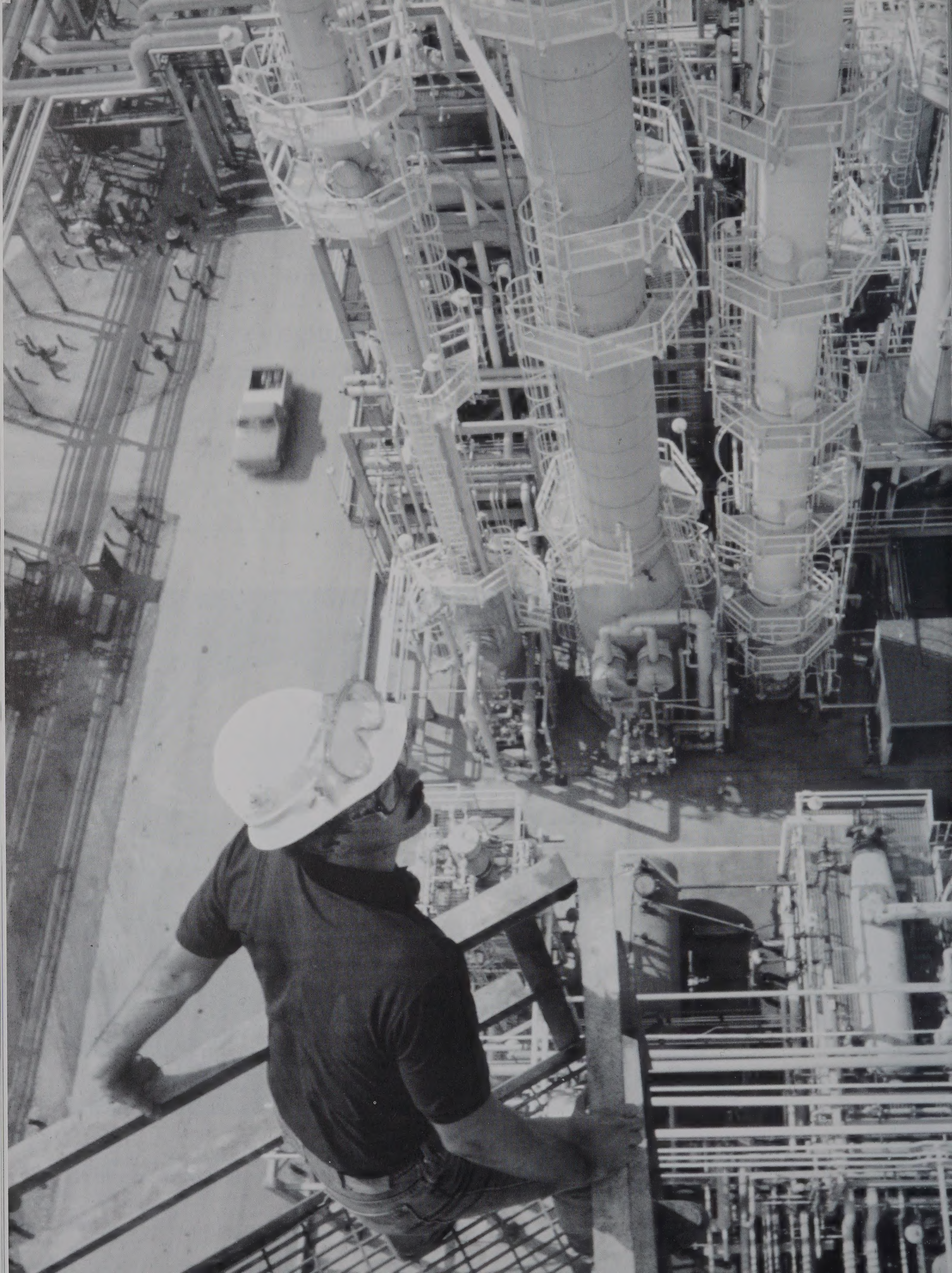
Figure 21. --- Disbursement to States of OCS royalties, rents, bonuses, escrow funds, and settlement payments, in millions, under the provisions of the OCS Lands Act Amendments of 1985, Fiscal Year 1990

Table 30.--Summary of distribution of mineral revenue shares to other Federal Agencies from Federal onshore acquired lands, 1985-90

	Agency Shares by Fiscal Year					
	1985-86	1987	1988	1989	1990	1985-90
U.S. Army Corps of Engineers.......	$ 5,033,867	$ 1,313,384	$ 621,309	$ 2,002,190	$ 2,887,861	$ 11,858,611
U.S. Department of Agriculture.....	113,225,974	47,591,946	44,717,622	91,939,261	54,693,426	352,168,229
Total..........	**$118,259,841**	**$48,905,330**	**$45,338,931**	**$93,941,451**	**$57,581,287**	**$364,026,840**

NOTE: The distribution of mineral revenue shares to the States from acquired lands is made by the U.S. Army Corps of Engineers and the U.S. Department of Agriculture.

Employees in the RMP Royalty Compliance and Fiscal Accounting Divisions perform audits and ensure the accuracy of revenue disbursements.



Royalty-In-Kind

Under the Mineral Lands Leasing Act of 1920 and the Outer Continental Shelf Lands Act of 1953, the Federal Government, as lessor, may take part or all of its oil and gas royalties "in kind." The Secretary of the Interior, exercising discretionary authority, has historically determined that certain oil refiners do not have access to a secure supply of crude. The Federal Government may direct Federal lessees to pay their royalty shares in crude oil, rather than "in value" as cash. The Government, in turn, sells the royalty-in-kind (RIK) oil at fair market value to eligible refiners. Contracts with these refiners are ordinarily made for a period of 3 years.

Two offshore contractors participated in the RIK program in 1990 collectively purchasing 733,582 barrels of RIK crude with a royalty value of $11.5 million. This represents a decline of 10.6 percent in volume over the corresponding figure of 820,300 barrels in 1989; however, the royalty value increased 24.2 percent, from $9.3 million in 1989 due to the rise in oil prices in the third and fourth quarters of 1990 (table 31).

Four onshore contractors continued to participate in the RIK program during the year. Collective purchases by the refiners fell 3.7 percent, from 6 million barrels in 1989 to 5.8 million barrels in 1990. The royalty value of the purchases rose 24.8 percent, from $95.2 million in 1989 to $118.8 million in 1990, again due to the rise in oil prices during the last half of the year (table 31).

Total RIK crude, with a royalty value of nearly $130.4 million, represented 8.7 percent of the $1.5 billion in oil royalties paid to the Federal Government in 1990 (tables 2 and 31). The 1990 figure remains well below RIK royalty values during the period 1978-85 when oil prices were high and supplies were limited (table 31 and figures 1 and 2). The sustained decline in interest in the RIK program is associated with the continued availability of low-priced crude oil on both foreign and domestic markets.

Table 31.--Summary of Royalty-In-Kind oil taken as royalty payments for Federal mineral lease production, 1976-90

	Onshore RIK Oil		Offshore RIK Oil		Total RIK	
	Barrels Sold	Royalty Value	Barrels Sold	Royalty Value	Barrels Sold	Royalty Value
1976-80......	54,893,711	$ 570,298,668	135,686,560	$1,490,991,426	190,580,271	$2,061,290,094
1981......	7,498,508	240,535,887	22,086,347	761,461,463	29,584,855	1,001,997,350
1982......	4,903,877	130,817,540	12,393,000	361,201,000	17,296,877	492,018,540
1983......	6,912,354	191,886,947	6,582,569	185,891,749	13,494,923	377,778,696
1984......	7,750,000	217,132,000	19,170,000	575,115,000	26,920,000	792,247,000
1985......	4,498,065	115,855,987	5,967,887	156,212,497	10,465,952	272,068,484
1986......	1,528,842	21,385,284	1,432,418	19,023,331	2,961,260	40,408,615
1987......	4,820,893	82,969,264	920,306	10,780,105	5,741,199	93,749,369
1988......	6,928,986	94,314,227	861,027	7,951,951	7,790,013	102,266,178
1989......	6,021,694	95,241,410	820,300	9,295,589	6,841,994	104,536,999
1990......	5,800,634	118,816,887	733,582	11,544,477	6,534,216	130,361,364
1976-90......	**111,557,564**	**$1,879,254,101**	**206,653,996**	**$3,589,468,588**	**318,211,560**	**$5,468,722,689**

⇦ **Engineer surveys refinery operations.
(Photo courtesy Phillips Petroleum Company.)**

Lease Management

Oil and Gas Leases

There were 24,752 producing and producible Federal and Indian oil and gas leases as of December 31, 1990. This represents an increase of 112 leases over a comparable figure of 24,640 leases in 1989. The amount of acreage under production or capable of production on Federal and Indian lands remained relatively stable at 20.3 million acres (figure 22 and tables 32 and 33).

There were 86 fewer producing or producible Indian oil and gas leases at the end of 1990. Indian oil and gas acreage rose 2.7 percent, however, from 1,565,123 acres in 1989 to 1,607,407 acres in 1990 (figure 22 and tables 32 and 33).

There were 169 additional producing or producible oil and gas leases on Federal onshore lands at the end of 1990. The amount of acreage in production or capable of production on Federal onshore lands, however, decreased by 264,978 acres, from 10.9 million acres in 1989 to 10.6 million acres in 1990 (figure 22 and tables 32 and 33).

The number of producing or producible oil and gas leases on the Outer Continental Shelf (OCS) increased 1.7 percent, from 1,688 leases in 1989 to 1,717 leases in 1990. Acreage on the OCS rose 1.9 percent, or 148,563 acres, from 7.9 million acres in 1989 to 8 million acres in 1990 (figure 22 and tables 32 and 33).

Coal Leases

There were 134 producing Federal and Indian coal leases at the end of both 1989 and 1990. Due to additions and deletions in the number of leases from 1989 to 1990, the net amount of acreage in production fell by 20,900 acres, from 392,116 acres at the end of 1989 to 371,216 acres at the end of 1990 (tables 34 and 35).

A net gain of 2 producing leases increased total acreage in production on Federal lands by 8.3 percent, or 19,611 acres. The elimination of 2 producing coal leases on Indian lands in New Mexico in 1990 reduced total Indian acreage by 25.9 percent, or 40,511 acres, from 156,141 acres in 1989 to 115,630 acres in 1990 (tables 34 and 35).

Other Mineral Leases

The number of other types of onshore producing mineral leases on Federal and Indian lands rose from 215 leases at the end of 1989 to 222 leases at the end of 1990. The net amount of acreage in production increased by 89 acres (figure 23 and tables 36 and 37).

Additions and deletions in the number of producing leases on Federal lands from 1989 to 1990 generated a net increase of 2 leases on 2,388 additional acres. Increases in the number of geothermal leases in California and phosphate leases in Idaho were offset by a decline in the number of quartz crystal leases in Arkansas, sand and gravel leases in Nevada, potash leases in New Mexico, and sodium leases in New Mexico and Wyoming (figure 23 and tables 36 and 37).

Additions and deletions in the number of producing leases on Indian lands from 1989 to 1990 generated a net increase of 5 leases. The amount of acreage in production, however, fell 15.8 percent, from 14,564 acres at the end of 1989 to 12,265 acres at the end of 1990. Increases in the number of phosphate leases in Idaho, chat leases in Oklahoma, and sand and gravel leases in California, New Mexico, and Washington were offset by declines in the number of gypsum leases in New Mexico, and sand and gravel leases in Arizona and Oklahoma (figure 23 and tables 36 and 37).

The Department of the Interior administered 88,476 mineral leases, licenses, permits, and applications on Federal and Indian lands at the end of 1990. This included 86,346 oil and gas documents and 2,130 coal and other minerals documents. The number of oil, gas, coal, and other minerals documents declined compared with corresponding figures from 1989 (tables 40 and 41).

⇦ **Technicians study well logs and seismograms. (Photo courtesy Texaco, Inc.)**

Table 32.--Producing and producible Federal and Indian onshore oil & gas leases in 31 States and offshore in 5 OCS areas, as of December 31, 1990

	Indian		Federal		Total Onshore	
	No.	Acres	No.	Acres	No.	Acres
Alabama....................	---	---	18	7,273	18	7,273
Alaska.....................	1	2,560	34	60,978	35	63,538
Arizona....................	10	66,211	---	---	10	66,211
Arkansas...................	---	---	175	89,499	175	89,499
California.................	---	---	350	83,020	350	83,020
Colorado...................	141	434,419	1,939	1,421,904	2,080	1,856,323
Florida....................	---	---	8	6,353	8	6,353
Illinois...................	---	---	3	753	3	753
Kansas.....................	---	---	441	121,230	441	121,230
Kentucky...................	---	---	43	20,987	43	20,987
Louisiana..................	---	---	173	50,495	173	50,495
Maryland...................	---	---	4	37,731	4	37,731
Michigan...................	3	60	38	70,849	41	70,909
Mississippi................	---	---	118	56,091	118	56,091
Missouri...................	---	---	1	200	1	200
Montana....................	460	115,225	1,309	791,686	1,769	906,911
Nebraska...................	---	---	25	38,561	25	38,561
Nevada.....................	---	---	42	19,813	42	19,813
New Mexico.................	438	497,962	5,716	3,345,556	6,154	3,843,518
New York...................	---	---	2	796	2	796
North Dakota...............	35	6,817	475	351,916	510	358,733
Ohio.......................	---	---	67	9,220	67	9,220
Oklahoma...................	2,199	192,190	761	116,934	2,960	309,124
Pennsylvania...............	---	---	60	11,931	60	11,931
South Dakota...............	1	160	70	50,035	71	50,195
Tennessee..................	---	---	7	2,446	7	2,446
Texas......................	8	2,625	126	48,121	134	50,746
Utah.......................	745	236,291	1,060	797,976	1,805	1,034,267
Virginia...................	---	---	1	2,168	1	2,168
West Virginia..............	---	---	136	143,033	136	143,033
Wyoming....................	96	52,887	5,696	2,852,108	5,792	2,904,995
Subtotal.............			18,898	10,609,663	23,035	12,217,070
Total.................	**4,137**	**1,607,407**				

	Federal		Total Offshore	
	No.	Acres	No.	Acres
Alaska OCS Area................................	8	34,913	8	34,913
California OCS Area............................	46	236,910	46	236,910
Gulf of Mexico OCS Area				
Central OCS Planning Area..................	1,336	6,045,954	1,336	6,045,954
Eastern OCS Planning Area..................	3	17,280	3	17,280
Western OCS Planning Area..................	324	1,709,561	324	1,709,561
Subtotal.................................	1,717	8,044,618	1,717	8,044,618
Total.....................................	**20,615**	**18,654,281**	**24,752**	**20,261,688**

Table 33.--Producing and producible Federal offshore and Federal and Indian onshore oil & gas leases as of December 31, 1981-90

	No.	Acres		No.	Acres
1981			**1986**		
Offshore Federal.....	1,218	5,447,556	Offshore Federal.....	1,536	7,131,041
Onshore Federal......	14,199	8,225,900	Onshore Federal......	18,381	11,009,329
Indian...............	3,563	1,287,144	Indian...............	4,701	1,647,920
Total...........	**18,980**	**14,960,600**	**Total...........**	**24,618**	**19,788,290**
1982			**1987**		
Offshore Federal.....	1,300	5,879,977	Offshore Federal.....	1,596	7,415,149
Onshore Federal......	15,048	9,208,010	Onshore Federal......	18,539	11,000,487
Indian...............	3,778	1,222,699	Indian...............	4,819	1,625,772
Total...........	**20,126**	**16,310,686**	**Total...........**	**24,954**	**20,041,408**
1983			**1988**		
Offshore Federal.....	1,381	6,279,353	Offshore Federal.....	1,647	7,691,964
Onshore Federal......	15,471	9,448,364	Onshore Federal......	18,697	10,991,646
Indian...............	3,865	1,236,562	Indian...............	4,349	1,600,469
Total...........	**20,717**	**16,964,279**	**Total...........**	**24,693**	**20,284,079**
1984			**1989**		
Offshore Federal.....	1,466	6,693,471	Offshore Federal.....	1,688	7,896,055
Onshore Federal......	16,760	10,219,610	Onshore Federal......	18,729	10,874,641
Indian...............	4,392	1,594,148	Indian...............	4,223	1,565,123
Total...........	**22,618**	**18,507,229**	**Total...........**	**24,640**	**20,335,819**
1985			**1990**		
Offshore Federal.....	1,514	6,965,316	Offshore Federal.....	1,717	8,044,618
Onshore Federal......	17,818	10,996,850	Onshore Federal......	18,898	10,609,663
Indian...............	4,601	1,842,803	Indian...............	4,137	1,607,407
Total...........	**23,933**	**19,804,969**	**Total...........**	**24,752**	**20,261,688**

Table 34.--Producing Federal and Indian onshore coal leases in 11 States, as of December 31, 1990

	Federal		Indian		Total	
	No.	Acres	No.	Acres	No.	Acres
Alabama........................	1	120	---	---	1	120
Arizona........................	---	---	3	64,858	3	64,858
Colorado.......................	27	36,135	---	---	27	36,135
Kentucky.......................	1	196	---	---	1	196
Montana........................	12	31,821	1	14,746	13	46,567
New Mexico.....................	6	13,954	2	36,026	8	49,980
North Dakota...................	10	10,362	---	---	10	10,362
Oklahoma.......................	3	3,460	---	---	3	3,460
Utah...........................	32	47,054	---	---	32	47,054
Washington.....................	1	241	---	---	1	241
Wyoming........................	35	112,243	---	---	35	112,243
Total......................	128	255,586	6	115,630	134	371,216

**Dragline removes overburden at surface coal mine.
(Photo courtesy AMAX Coal Industries, Inc.)**

Table 35.--Producing Federal and Indian onshore coal leases as of December 31, 1981-90

	Federal		Indian		Total	
	No.	Acres	No.	Acres	No.	Acres
1981	109	159,043	5	115,630	114	274,673
1982	108	185,946	6	155,918	114	341,864
1983	103	174,358	6	155,918	109	330,276
1984	118	188,594	6	155,918	124	344,512
1985	127	223,830	7	195,918	134	419,748
1986	118	227,484	6	155,630	124	383,114
1987	121	213,993	7	195,918	128	409,911
1988	119	224,579	7	155,918	126	380,497
1989	126	235,975	8	156,141	134	392,116
1990	128	255,586	6	115,630	134	371,216

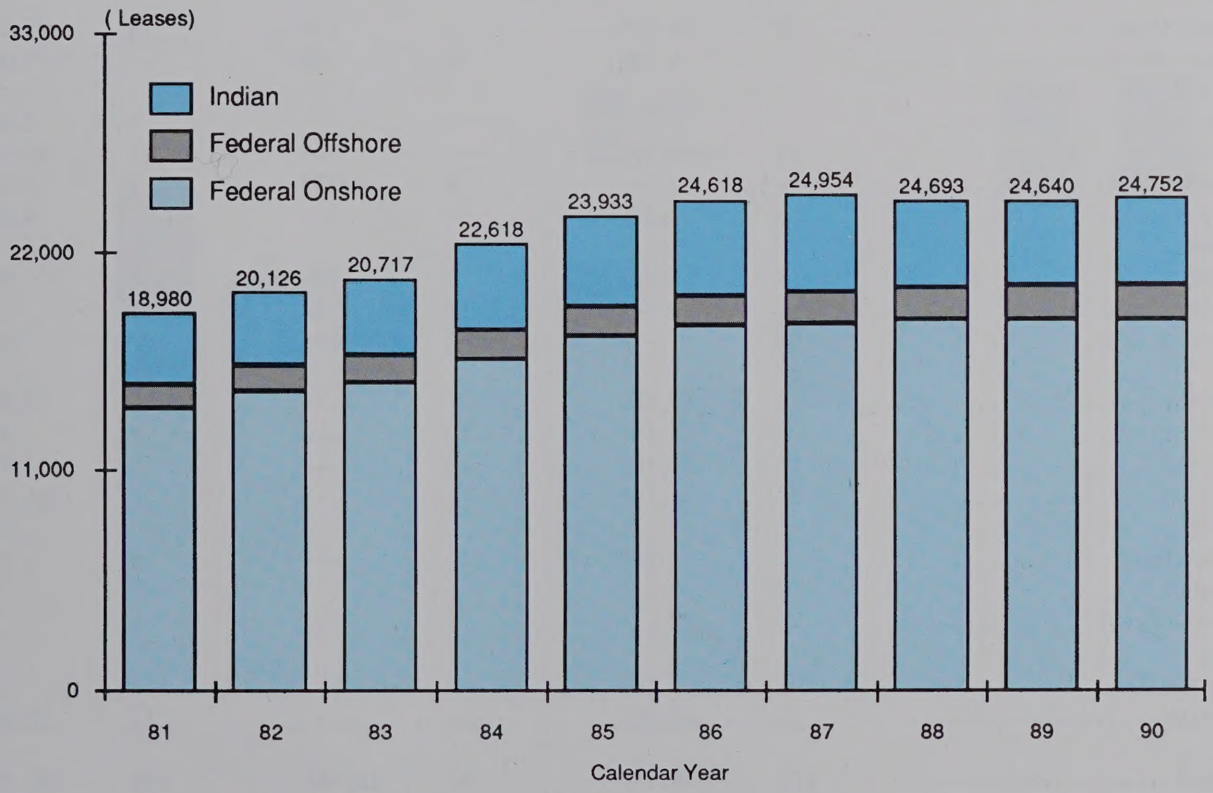


Figure 22. --- Producing and producible Federal offshore, and Federal and Indian onshore oil and gas leases, 1981-90

Table 36.--Producing Federal and Indian onshore leases of other minerals in 15 States, as of December 31, 1990

	Federal		Indian		Total	
	No.	Acres	No.	Acres	No.	Acres
Arizona						
Copper....................	---	---	2	2,554	2	2,554
Sand-Gravel..............	---	---	8	574	8	574
Sand-Silica..............	---	---	1	640	1	640
Arkansas						
Quartz Crystals..........	3	322	---	---	3	322
California						
Geothermal...............	20	21,799	---	---	20	21,799
Sand-Gravel..............	---	---	3	1,322	3	1,322
Sodium...................	3	19,989	---	---	3	19,989
Georgia						
Amethyst.................	1	218	---	---	1	218
Idaho						
Garnet Sands.............	1	40	---	---	1	40
Phosphate................	6	5,443	16	4,476	22	9,919
Minnesota						
Iron Ore.................	1	160	---	---	1	160
Missouri						
Lead/Zinc................	7	24,586	---	---	7	24,586
Montana						
Phosphate................	5	1,983	---	---	5	1,983
Nevada						
Geothermal...............	14	25,896	---	---	14	25,896
Sand-Gravel..............	2	1,100	1	100	3	1,200
New Mexico						
Geothermal...............	1	2,501	---	---	1	2,501
Potash...................	25	46,120	---	---	25	46,120
Sand-Gravel..............	---	---	5	1,593	5	1,593
Sodium...................	5	4,394	---	---	5	4,394
Oklahoma						
Chat.....................	---	---	6	655	6	655
Limestone................	---	---	1	18	1	18
Sand-Gravel..............	---	---	2	256	2	256
Utah						
Geothermal...............	6	11,558	---	---	6	11,558
Gilsonite................	2	437	---	---	2	437
Potash...................	10	24,700	---	---	10	24,700
Sodium...................	50	126,191	---	---	50	126,191
Virginia						
Limestone................	1	355	---	---	1	355
Washington						
Sand-Gravel..............	---	---	2	77	2	77
Wyoming						
Bentonite................	1	160	---	---	1	160
Sodium...................	11	20,595	---	---	11	20,595
Total...................	**175**	**338,547**	**47**	**12,265**	**222**	**350,812**

Table 37.--Producing Federal and Indian onshore leases of other minerals as of December 31, 1981-90

	Federal		Indian		Total	
	No.	Acres	No.	Acres	No.	Acres
1981	133	191,555	46	28,464	179	220,019
1982	114	181,442	33	23,485	147	204,927
1983	107	161,679	36	19,242	143	180,921
1984	118	163,603	16	10,468	134	174,071
1985	113	212,092	41	14,248	154	226,340
1986	80	149,586	28	17,915	108	167,501
1987	102	177,996	32	17,938	134	195,934
1988	128	210,942	43	19,267	171	230,209
1989	173	336,159	42	14,564	215	350,723
1990	175	338,547	47	12,265	222	350,812

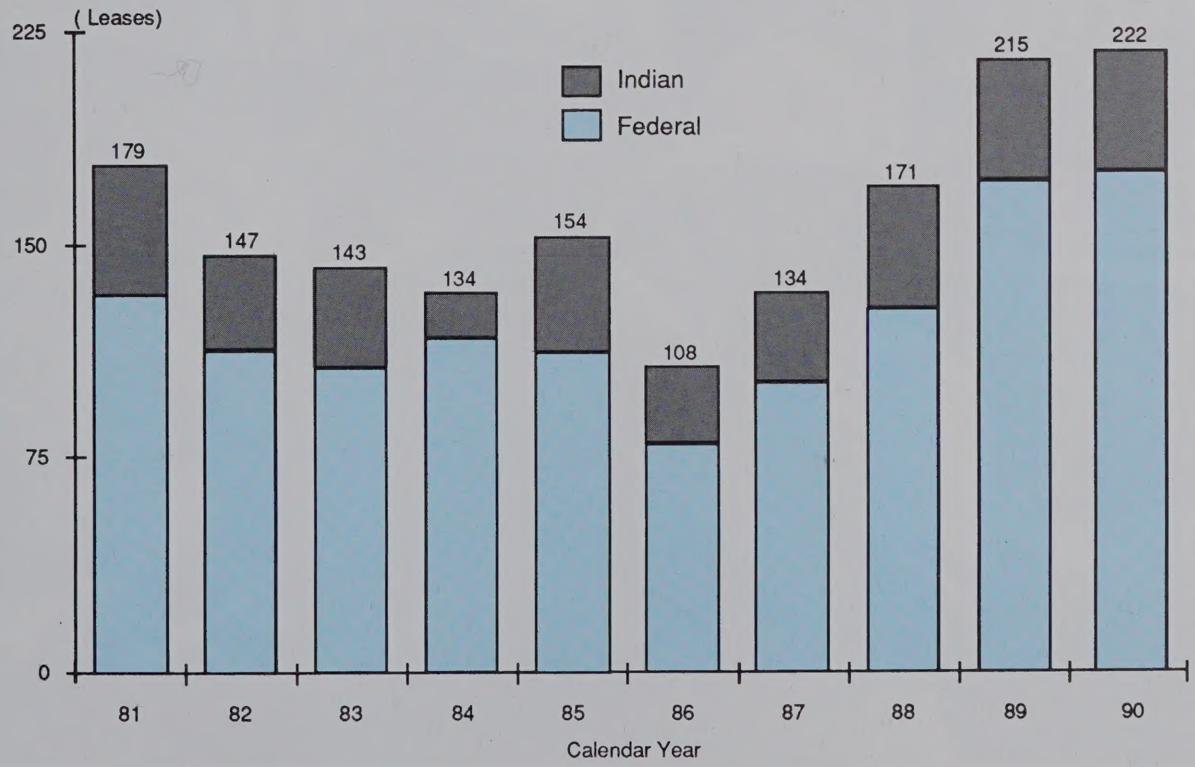


Figure 23. --- Producing Federal and Indian onshore leases of other minerals, 1981-90

Table 38.--Summary by area of oil & gas and other mineral leases, licenses, and permits under the supervision of the Department of the Interior on the OCS, as of December 31, 1990

	Federal Leases Offshore					
	Oil & Gas		Other		Total Offshore	
	No.	Acres	No.	Acres	No.	Acres
Alaska.......................	894	4,955,874	---	---	894	4,955,874
Atlantic States.............	61	347,284	---	---	61	347,284
California..................	110	563,335	---	---	110	563,335
Gulf of Mexico..............						
Central..................	3,311	16,123,809	17	148,774	3,328	16,272,583
Eastern..................	302	1,769,353	---	---	302	1,769,353
Western..................	1,468	7,704,803	---	---	1,468	7,704,803
Total...................	**6,146**	**31,464,458**	**17**	**148,774**	**6,163**	**31,613,232**

Geologist monitors drilling operation with a platform employee. (Photo courtesy Exxon Corporation.)

Table 39.--Summary of oil & gas and other mineral leases, licenses, and permits under the supervision of the Department of the Interior on the OCS, as of December 31, 1981-90

	Federal Leases Offshore					
	Oil & Gas		Other		Total Offshore	
	No.	Acres	No.	Acres	No.	Acres
1981	2,573	12,270,134	2	4,995	2,575	12,275,129
1982	2,694	12,562,199	2	4,995	2,696	12,567,194
1983	3,787	18,523,110	2	4,995	3,789	18,528,105
1984	5,017	25,110,274	7	11,945	5,024	25,122,219
1985	5,197	26,000,951	7	11,948	5,204	26,012,899
1986	5,068	25,426,299	7	11,948	5,075	25,438,247
1987	5,185	26,079,332	7	11,948	5,192	26,091,280
1988	5,801	29,434,977	17	148,774	5,818	29,583,751
1989	6,498	33,273,059	17	148,774	6,515	33,421,833
1990	6,146	31,464,458	17	148,774	6,163	31,613,232

Table 40.--Summary by State of oil & gas and other mineral leases, licenses, permits, and applications under the supervision of the Department of the Interior on Federal and Indian onshore lands, as of December 31, 1990

	Oil & Gas Supervision Onshore						Total Oil & Gas Supervision Onshore	
	Public		Acquired		Indian			
	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Alabama	153	22,977	239	174,087	---	---	392	197,064
Alaska	4,066	1,026,689	---	---	1	2,560	4,067	1,029,249
Arizona	168	326,160	10	6,624	10	66,211	188	398,995
Arkansas	491	344,830	1,056	728,457	---	---	1,547	1,073,287
California	1,225	847,291	57	64,890	---	---	1,282	912,181
Colorado	7,368	7,186,924	491	252,394	141	434,419	8,000	7,873,737
Florida	53	25,011	160	256,362	342	189,358	555	470,731
Georgia	---	---	3	4,476	---	---	3	4,476
Idaho	123	302,916	3	2,448	---	---	126	305,364
Illinois	---	---	9	1,594	---	---	9	1,594
Kansas	145	33,904	310	87,326	---	---	455	121,230
Kentucky	---	---	65	47,038	---	---	65	47,038
Louisiana	248	27,833	324	183,046	---	---	572	210,879
Maryland	---	---	9	37,731	---	---	9	37,731
Michigan	220	124,841	1,078	541,771	3	60	1,301	666,672
Minnesota	---	---	5	1,679	---	---	5	1,679
Mississippi	129	13,740	1,212	664,818	23	5,301	1,364	683,859
Missouri	2	2,047	---	---	---	---	2	2,047
Montana	4,958	5,047,491	720	610,230	1,393	578,550	7,071	6,236,271
Nebraska	67	15,949	25	22,612	---	---	92	38,561
Nevada	3,235	7,548,936	2	1,033	---	---	3,237	7,549,969
New Mexico	11,158	7,522,526	115	83,555	594	665,725	11,867	8,271,806
New York	---	---	7	8,673	---	---	7	8,673
North Carolina	---	---	5	6,251	---	---	5	6,251
North Dakota	600	231,703	818	566,732	69	143,644	1,487	942,079
Ohio	1	60	83	21,553	---	---	84	21,613
Oklahoma	852	121,490	623	313,782	3,579	382,147	5,054	817,419
Oregon	199	430,082	8	10,867	---	---	207	440,949
Pennsylvania	---	---	60	11,931	---	---	60	11,931
South Carolina	---	---	11	19,855	---	---	11	19,855
South Dakota	366	494,514	66	57,328	2	399	434	552,241
Tennessee	---	---	25	48,859	---	---	25	48,859
Texas	---	---	489	300,789	8	2,625	497	303,414
Utah	6,029	6,792,744	58	25,049	898	309,900	6,985	7,127,693
Virginia	---	---	141	206,214	---	---	141	206,214
Washington	69	109,676	38	50,794	---	---	107	160,470
West Virginia	---	---	195	257,988	---	---	195	257,988
Wisconsin	4	1,024	25	85,883	---	---	29	86,907
Wyoming	28,242	19,149,328	471	134,757	96	52,887	28,809	19,336,972
Total	**70,171**	**57,750,686**	**9,016**	**5,899,476**	**7,159**	**2,833,786**	**86,346**	**66,483,948**

SOURCE: Data from Bureau of Land Management and Minerals Management Service records.

Table 40.--Summary by State of oil & gas and other mineral leases, licenses, permits, and applications under the supervision of the Department of the Interior on Federal and Indian onshore lands, as of December 31, 1990

Other Minerals Supervision Onshore						Total "Other" Supervision Onshore		Total Oil, Gas, and "Other" Minerals Under Supervision		
Public		Acquired		Indian						
No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	
18	13,306	4	1,360	---	---	22	14,666	414	211,730	Alabama
4	8,280	---	---	---	---	4	8,280	4,071	1,037,529	Alaska
1	784	---	---	18	76,074	19	76,858	207	475,853	Arizona
---	---	19	3,797	---	---	19	3,797	1,566	1,077,084	Arkansas
253	352,071	4	2,623	5	16,393	262	371,087	1,544	1,283,268	California
123	177,511	9	4,974	---	---	132	182,485	8,132	8,056,222	Colorado
6	963	4	425	---	---	10	1,388	565	472,119	Florida
---	---	2	364	---	---	2	364	5	4,840	Georgia
100	51,189	10	4,585	49	7,287	159	63,061	285	368,425	Idaho
---	---	6	3,207	---	---	6	3,207	15	4,801	Illinois
---	---	---	---	---	---	---	---	455	121,230	Kansas
2	1,921	5	3,009	---	---	7	4,930	72	51,968	Kentucky
---	---	---	---	---	---	---	---	572	210,879	Louisiana
---	---	---	---	---	---	---	---	9	37,731	Maryland
---	---	2	120	---	---	2	120	1,303	666,792	Michigan
2	410	12	11,002	---	---	14	11,412	19	13,091	Minnesota
---	---	1	596	---	---	1	596	1,365	684,455	Mississippi
---	---	41	42,524	---	---	41	42,524	43	44,571	Missouri
50	69,839	---	---	2	14,806	52	84,645	7,123	6,320,916	Montana
---	---	1	1,319	---	---	1	1,319	93	39,880	Nebraska
209	350,877	---	---	1	560	210	351,437	3,447	7,901,406	Nevada
200	283,692	---	---	139	278,740	339	562,432	12,206	8,834,238	New Mexico
---	---	---	---	---	---	---	---	7	8,673	New York
---	---	3	2,549	---	---	3	2,549	8	8,800	North Carolina
15	12,489	1	10	---	---	16	12,499	1,503	954,578	North Dakota
---	---	---	---	---	---	---	---	84	21,613	Ohio
36	49,171	5	613	12	7,258	53	57,042	5,107	874,461	Oklahoma
155	240,038	---	---	5	77	160	240,115	367	681,064	Oregon
---	---	2	81	---	---	2	81	62	12,012	Pennsylvania
---	---	8	24,952	---	---	8	24,952	19	44,807	South Carolina
---	---	---	---	---	---	---	---	434	552,241	South Dakota
---	---	1	504	---	---	1	504	26	49,363	Tennessee
---	---	---	---	---	---	---	---	497	303,414	Texas
319	536,442	20	49,832	---	---	339	586,274	7,324	7,713,967	Utah
---	---	1	355	---	---	1	355	142	206,569	Virginia
3	2,434	1	160	26	10,548	30	13,142	137	173,612	Washington
---	---	1	20	---	---	1	20	196	258,008	West Virginia
---	---	11	3,361	---	---	11	3,361	40	90,268	Wisconsin
177	337,816	3	3,120	23	56,847	203	397,783	29,012	19,734,755	Wyoming
1,673	**2,489,233**	**177**	**165,462**	**280**	**468,590**	**2,130**	**3,123,285**	**88,476**	**69,607,233**	Total

Table 41.--Summary of oil & gas and other mineral leases, licenses, permits, and applications under the supervision of the Department of the Interior on Federal and Indian onshore lands, as of December 31, 1981-90

	Oil & Gas Supervision Onshore						Total Oil & Gas Supervision Onshore	
	Public		Acquired		Indian			
	No.	Acres	No.	Acres	No.	Acres	No.	Acres
1981......	110,162	120,693,631	12,773	9,141,627	16,224	3,975,603	139,159	133,810,861
1982......	115,561	150,752,220	14,603	11,360,114	15,201	4,050,049	145,365	166,162,383
1983......	119,502	151,987,107	14,573	11,647,165	14,391	3,681,536	148,466	167,315,808
1984......	110,615	122,886,849	11,820	10,140,919	16,087	4,301,412	138,522	137,329,180
1985......	106,067	110,906,100	10,888	9,766,621	14,493	4,449,393	131,448	125,122,114
1986......	92,773	84,648,979	10,112	8,081,804	11,884	3,840,956	114,769	96,571,739
1987......	78,755	64,606,541	8,813	6,597,216	11,047	3,524,758	98,615	74,728,515
1988......	72,764	60,928,819	8,064	5,946,917	9,696	3,447,994	90,524	70,323,730
1989......	73,266	61,469,693	8,878	6,210,647	9,119	3,587,979	91,263	71,268,319
1990......	70,171	57,750,686	9,016	5,899,476	7,159	2,833,786	86,346	66,483,948

Source: Data from Bureau of Land Management and Minerals Management Service records.

Table 41.--Summary of oil & gas and other mineral leases, licenses, permits, and applications under the supervision of the Department of the Interior on Federal and Indian onshore lands, as of December 31, 1981-90

Other Minerals Supervision Onshore						Total "Other" Supervision Onshore		Total Oil, Gas, and "Other" Minerals Under Supervision		
Public		Acquired		Indian						
No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	
2,866	4,582,507	268	285,284	635	1,231,061	3,769	6,098,852	142,928	139,909,713	1981
3,191	5,170,098	259	270,390	547	717,650	3,997	6,158,138	149,362	172,320,521	1982
2,932	4,966,337	455	531,449	425	684,147	3,812	6,181,933	152,278	173,497,741	1983
2,833	4,768,663	352	356,083	392	926,328	3,577	6,051,074	142,099	143,380,254	1984
1,662	2,729,757	202	230,458	301	240,003	2,165	3,200,218	133,613	128,322,332	1985
2,547	4,060,011	276	270,007	263	236,030	3,086	4,566,048	117,855	101,137,787	1986
2,125	3,243,214	245	220,154	275	240,285	2,645	3,703,653	101,260	78,432,168	1987
1,953	3,000,797	218	205,157	281	235,135	2,452	3,441,089	92,976	73,764,819	1988
1,775	2,647,295	179	174,403	317	454,472	2,271	3,276,170	93,534	74,544,489	1989
1,673	2,489,233	177	165,462	280	468,590	2,130	3,123,285	88,476	69,607,233	1990

Table 42.--General Federal and Indian mineral lease terms

	Oil & Gas Leases/Federal Offshore Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
OCS Lease	12-1/2% and 16-2/3% on production. Net profit sharing or sliding scale from 12-1/2% to 65%, flat rates of 33-1/3% and above.	$3 per acre: $3 per acre minimum royalty after discovery; $10 per acre for drainage sales; $10 per acre minimum royalty for drainage sales.	5 years (not to exceed 10 years). Continued if capable of producing in commercial quantities.	5,000 acres unless a larger area is needed for a production unit.	Lease: $50,000. Area: $300,000.

	Oil & Gas Leases/Federal Onshore Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Competitive Lease	Prior to 12-23-87: oil 12-1/2% to 25%, and gas 12-1/2% or 16-2/3%, depending on production per well per day for the calendar month. Leases after 12-22-87: flat rate of 12-1/2%.	Rental $1.50 and $2 per acre; $1 per acre minimum royalty after discovery. Leases after 12-22-87: minimum royalty cannot be less than rental requirement.	5 years; continued if capable of producing in commercial quantities.	640 acres or less.	Lease: $10,000. State: $25,000. Nationwide: $150,000.
Non-Competitive Lease	12-1/2% on production.	Rental $.50 or $1 per acre. $2 per acre if later classified as a known geologic structure. Leases after 12-22-87: $2 per acre for 6-10 years for simultaneous leasing; $1 per acre minimum royalty after discovery; $75 filing fee per lease. Minimum royalty cannot be less than rental requirement.	10 years; continued if capable of producing in commercial quantities.	10,240 acres maximum within 6-mile square, or 640 acres minimum.	Lease: $10,000. State: $25,000. Nationwide: $150,000.

Table 42.--General Federal and Indian mineral lease terms

	Oil & Gas Leases/Federal Onshore Lands (cont.)				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
National Petroleum Reserve in Alaska Lease (Subject to Appropriation Act of 1981)	Not set by law--now 16-2/3%.	$3 per acre.	10 years or less.	Up to 60,000 acres.	Corporate Surety--$100,000.

	Oil & Gas Leases/Indian Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Indian Lease	Varied. Generally, new leases provide for 20% or more on production. Older leases are generally 12-1/2% or 16-2/3%.	Varied. Amounts range from $1.25 per acre to $30 per acre. Rents may or may not be recoupable against royalties.	Generally the primary term is 5 years or less.	Varied. Range from fraction of an acre to over 200,000 acres.	Lease: $500 to $2,000 depending on acreage. Nationwide: $75,000.

	Coal Leases/Federal Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Lease Sold Before August 4, 1976	$.15 ton underground; $.175 ton surface mines.	$1 per acre credited against royalty payments for the lease year; minimum royalty payments per lease terms.	Indefinite period with 20-year readjustments.	Not more than 46,080 acres in one State & no more than 100,000 acres in U.S. for one or more leases.	Nonproducing leases: $5,000 or amount equal to annual rent rounded to $1,000, whichever is greater. Producing leases: 3 months' production royalty.

Table 42.--General Federal and Indian mineral lease terms (cont.)

	Coal Leases/Federal Lands (cont.)				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Lease Sold After August 3, 1976	Readjusted & new leases: 8% of value underground; 12-1/2% of value at surface.	$3 per acre not credited against royalty payments. $250 lease filing fee. $50 transfer fee.	20 years; continued if producing in commercial quantities, subject to readjustment every 10 years.	Not more than 46,080 acres in one State & no more than 100,000 acres in U.S. for one or more leases.	Nonproducing leases: $5,000 or amount equal to annual rent rounded to $1,000, whichever is greater. Producing leases: 3 months' production royalty.

	Coal Leases/Indian Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Indian Lease	Varies according to lease terms and amendments. Generally 6% to 12%.	Varied. Average rental rate per acre is $2. Advance royalty payable up to $1 million annually.	Varies by lease terms.	Varied.	Lease: $500 to $2,000, depending on acreage. State: $75,000 depending on acreage. Nationwide: $75,000 or as determined by the Secretary.

	Other Mineral Leases/Federal Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Asphalt Lease	Per lease terms, but not less than $.25 per ton.	$.25 first year; $.50 years 2-5; $1 per acre beginning year 6, credited against royalties. $3 per acre minimum royalty payable in advance beginning year 6, until production commences.	20 years, with right for renewal every 10 years thereafter.	2,560 acres.	Not less than $5,000.

Table 42.--General Federal and Indian mineral lease terms (cont.)

	Other Mineral Leases/Federal Lands (cont.)				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Geothermal Lease	10% to 15% of value of steam & not less than 5% of value of demineralized water; "by-products" royalty rate determined by particular mineral as specified in the Geothermal Steam Act, 1970 30 U.S.C. 1001-1025.	$1 per acre; $2 per acre in known geothermal resources area.	10 years; continued if capable of producing in commercial quantities.	2,560 acres & not less than 640 acres unless for nonelectrical uses.	Lease: $10,000. State: $50,000. Nationwide: $150,000. $5,000 minimum for protection of surface owner.
Gilsonite Lease	Per lease terms.	$.50 per acre credited against royalties. $3 per acre minimum royalty payable in advance beginning year 6, until production commences.	20 years, subject to readjustment every 20 years.	Per lease terms.	Not less than $5,000.
Lead, Zinc, or Iron Lease & Other Solid & Hardrock Minerals	Average 5% of value.	$1 per acre credited against royalties. $3 per acre minimum royalty payable in advance beginning year 6, until production commences.	20 years with right for renewal every 10 years thereafter.	2,560 acres.	Not less than $5,000.
Oil Shale Lease	Per lease terms.	$.50 per acre. Minimum royalty per lease terms.	Per lease terms.	Per lease terms.	Per lease terms.
Potassium, Sodium, or Phospahte Lease	Average 5% of value.	$.25 first year; $.50 years 2-5; $1 per acre beginning year 6, credited against royalties. $3 per acre minimum royalty payable in advance beginning year 6, until production commences.	Indefinite, subject to readjustment every 20 years.	2,560 acres.	Lease: Not less than $5,000. State: $25,000. Nationwide: $75,000

Table 42.--General Federal and Indian mineral lease terms (cont.)

	Other Mineral Leases/Federal Lands (cont.)				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Sulfur Lease	5% of value.	$.50 per acre credited against royalties. $3 per acre minimum royalty payable in advance beginning year 6, until production commences.	20 years, with right for renewal every 10 years thereafter.	640 acres.	Not less than $5,000.

	Other Mineral Leases/Indian Lands				
	Customary Royalty Rate	Annual Rental & Other Fees	Duration of Lease	Size of Lease	Bonding Requirements
Copper, Gold Lead, Silver, Tungsten, Zinc and Other Ores and Metals	Varies by commodity and lease terms. Ranges from $.29 per unit to $.75 per unit and from 10% to 22-1/2%.	Varies from $1 per acre to $5 per acre. Flat amount of rental or advance royalty due regardless of lease size. Can range from $2,000 to $1.2 million annually.	Varies by lease from 1 year to 20 years.	1 acre to 40,000 acres.	Lease: As Determined. State: $15,000. Nationwide: $75,000.

NOTE: Lease terms may be extended or modified for various reasons as authorized by regulation. A $10 fee is required to file, transfer, or assign an Indian lease. A comparable fee is required to file, transfer, or assign certain other lease commodities.

Glossary

AFS --- Auditing and Financial System. A computer system application operated by the Minerals Management Service for the collection and disbursement of royalties and rents from producing leases on Federal and Indian lands.

Action Plan --- Initiative for Indian Tribes and Allottees: An Action Plan for Improved Indian Royalty Management. A publication addressing a plan developed by the Minerals Management Service to improve royalty management services to the Indian community.

Allocation of Receipts --- Determination of revenues to be paid to funds, counties, States, or Indian Tribes and allottees from receipts collected during the fiscal year as required by law.

Application --- A formal request for rights to public lands or resources or for the eventual title to those lands or resources.

Assistant Secretary --- Assistant Secretary - Land and Minerals Management. Serves under the Secretary of the Interior. Exercises Secretarial direction and supervision over the Bureau of Land Management, the Minerals Management Service, and the Office of Surface Mining Reclamation and Enforcement.

Barrel/bbl --- A measure of volume for petroleum products. One barrel is equivalent to 42 U.S. gallons or 0.15899 cubic meters. One cubic meter equals 6.2897 barrels.

BIA --- Bureau of Indian Affairs. A Federal Agency within the Department of the Interior, responsible for facilitating the full development of the human and natural resource potential of Indian and Alaskan Native people to manage their own affairs under a trust relationship with the Federal Government.

BLM --- Bureau of Land Management. A Federal Agency within the Department of the Interior that administers public lands and natural resources. Bureau programs provide for the protection, orderly development, and use of the public lands and resources under principles of multiple use and sustained yield.

Bonus --- The cash consideration paid to the United States by the successful bidder for a mineral lease. The payment is made in addition to the rent and royalty obligations specified in the lease.

BRASS --- Bonus and Rental Accounting Support System. A computer system application operated by the Minerals Management Service for the collection and disbursement of rents and bonuses for nonproducing leases on Federal lands.

BSIP --- Business Systems Improvement Plan. A comprehensive effort by the Minerals Management Service Royalty Management Program to improve and consolidate existing automated royalty systems under a common shared data structure. The plan will provide subject databases that address information through broad business categories rather than by specific applications.

Btu --- British thermal unit. The amount of energy required to heat the temperature of 1 pound of water 1 degree Fahrenheit at or near 39.2 degrees Fahrenheit. An average Btu content of fuel is a heat value per unit quantity of fuel as determined from tests of fuel samples.

CIRI --- Cook Inlet Region, Inc. One of twelve regional corporations established by the Alaska Native Claims Settlement Act in 1971 to manage real property and capital assets paid as compensation for the aboriginal land rights of Alaska Natives. The Cook Inlet Region, Inc. maintains land holdings containing significant proven reserves of oil, natural gas, coal, and other mineral commodities.

Competitive Leasing --- Leases are issued by the United States where there are known mineral deposits or where inference of probable mineralization may be derived from knowledge of the geology of the land. The lands are offered for lease by competitive bidding following publication of the offer of the lands for lease. The lease is issued to the highest bidder at a sale by public auction. (See also noncompetitive leasing.)

Department --- Department of the Interior. A Cabinet-level Department in the Executive Branch of the Federal

Government responsible for the administration of most of the nationally owned public lands and natural resources. The Department is further responsible for American Indian reservation communities and for individuals who live in Island Territories under U.S. administration.

Director --- Director, Minerals Management Service.

Effective Date --- The date a lease or assignment becomes effective. For a lease, the first day of the month after the issue date or, upon applicant request, the first day of the month of issuance. For an assignment, the first day of the month after proper filing of all required documents.

EOP --- Explanation of Payment. A series of reports mailed twice monthly to Indians and allottees, and monthly to States, addressing the source and nature of mineral revenue disbursements.

Federal Land --- All classes of land owned by the Federal Government, including public, acquired, and military lands.

FOGRMA --- The Federal Oil and Gas Royalty Management Act of 1982. Public Law 97-451, enacted by Congress and signed into law by the President to ensure that all oil and gas originating from Federal and Indian lands and on the Outer Continental Shelf are properly accounted for under the direction of the Secretary of the Interior.

FY --- Fiscal Year. A period of time used for accounting purposes. The Federal Government recognizes a fiscal year that extends from October 1 of one year to September 30 of the following year.

Gas Plant Products --- Natural gas liquids recovered from natural gas processing plants and, in some situations, from natural gas field facilities, as well as those that are extracted from fractionators. Gas plant products are classified as follows: ethane, propane, normal butane, isobutane, pentane plus, and other finished petroleum products produced at natural gas processing plants, including finished motor gasoline, finished aviation gasoline, special napthas, kerosene, distillate fuel oil, and miscellaneous products.

Geothermal Energy --- Hot water or steam, extracted from geothermal reservoirs in the Earth's crust, which is supplied to steam turbines at electric utilities that drive generators to produce electricity, or which is fed through a system of pipes to provide radiation heating for agricultural purposes including hothouses.

Hydroelectric Power --- Electricity generated by an electric powerplant whose turbines are driven by falling water.

IITA --- Initiative for Indian Tribes and Allottees. An initiative developed by the Minerals Management Service Director to improve royalty management services to the Indian community. The Director assembled a task force to evaluate concerns expressed by the Special Committee on Investigations of the Senate Select Committee on Indian Affairs.

Indian Allotment --- An allocation of a parcel of public lands or Indian reservation lands to an Indian for individual use. Revenue from mineral production may vest with the individual Indian allottee.

Indian Allottee --- Any Indian for whom land or an interest in land is held in trust by the United States or who holds title subject to Federal restrictions against alienation.

Lease --- A legal document executed between a landowner, as lessor, and a company or individual, as lessee, that conveys the right to exploit the premises for minerals or other products.

License --- An authority granted by the United States to perform a particular act or series of acts upon public lands without the licensee possessing any estate or interest in the land itself.

Mcf --- Thousand cubic feet.

Mineral --- A naturally occurring organic or inorganic homogeneous substance with characteristics and economic uses that bring it within the purview of mineral laws. A substance that may be obtained under applicable laws from public lands by purchase, lease, or preemptive entry.

Mineral Permit --- A permit that authorizes prospecting for certain leasable minerals on public lands described in the permit.

Minimum Royalty --- A payment made annually on a per-acre basis to validate a lease in lieu of drilling.

MMS --- Minerals Management Service. A Federal Agency within the Department of the Interior that administers the Royalty Management Program and the Offshore Minerals Management Program. The Royalty Management Program is responsible for the accurate and timely determination, collection, and distribution of royalties from Federal and Indian lands, and bonuses and rents from Federal lands. The Offshore Minerals Management Program is responsible for offshore leasing and associated functions.

Noncompetitive Leasing --- Leases issued to qualified applicants for land not specifically known or presumed to contain mineral or petroleum deposits in quantity. (See also competitive leasing).

Nuclear Energy --- Electricity produced by an electric powerplant whose turbines are driven by steam generated in a reactor from heat from the fissioning of nuclear fuel.

OCS --- Outer Continental Shelf. All submerged lands laying seaward and outside the area of lands beneath navigable waters. Lands beneath navigable waters are interpreted as extending from the coastline no more than 3 nautical miles into the Atlantic Ocean, the Pacific Ocean, and the Gulf of Mexico excluding the coastal waters off Texas and western Florida. Lands beneath navigable waters are interpreted as extending from the coastline no more than 3 marine leagues into the Gulf of Mexico off Texas and western Florida.

OEA --- Office of External Affairs. A staff element within the Minerals Management Service, responsible for conducting an outreach program to ensure Royalty Management Program coordination and continuing communication with other Federal Agencies, States, Indian Tribes, Indian allottees, and the minerals industry.

Offshore Minerals Management Program --- See MMS.

OPEC --- Organization of Petroleum Exporting Countries. A cartel of oil-producing nations established to influence international oil production and pricing. Current members include Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operator --- The individual, partnership, or firm that has control or management of operations on a lease. The operator may be the lessee, designated agent of the lessee, or holder of rights acquired by an approved assignment of the operating rights.

PAAS --- Production Accounting and Auditing System. An integrated system of both automated and manual applications operated by the Minerals Management Service to collect production and other operational data and to ensure that royalties are paid on 100 percent of reported production.

Petroleum --- Oil or gas obtained from the rocks of the Earth by drilling into a reservoir rock and piping the minerals to the surface.

PIF --- Payor Information Form. A form required from each party who pays rentals or royalties to the Minerals Management Service. The form provides detailed lease ownership and operations information necessary to properly account for revenues from the lease.

RCD --- Royalty Compliance Division. A division of the Minerals Management Service responsible for coordinating and conducting audits of industry royalty reporting and payments practices for mineral leases on Federal and Indian lands.

Rent --- Periodic payments made by the holder of a lease for the right to use the land or resources for purposes established in the lease.

Report Month --- The month in which sales or royalty reports from lessees are received by the Minerals Management Service.

RIK --- Royalty-in-Kind. Under the Mineral Lands Leasing Act of 1920 and the Outer Continental Shelf Lands Act of 1953, the Federal Government, as lessor, may take part or all of its oil and gas royalties "in kind" (a volume of the commodity) as opposed to "in value" (cash). The Government sells the commodity at fair-market value to eligible refiners who do not have access to an adequate supply of crude oil at equitable prices.

RMAC --- Royalty Management Advisory Committee. The Committee, comprising representatives from States, Indian Tribes, and the minerals industry, addresses significant Royalty Management Program issues and advises the Secretary of the Interior on matters that concern participants in the royalty management process.

RMP --- Royalty Management Program. See MMS.

Royalty --- Payment, in money or kind, of a stated share of production from mineral deposits by the lessee to the lessor. Royalty may be an established minimum, a sliding-scale, or a step-scale. A step-scale royalty rate increases by steps as the average production on the lease increases. A sliding-scale royalty rate is based on average production and applies to all production from the lease.

Secretary --- Secretary of the Interior.

Senate Select Committee --- Special Committee on Investigations of the Senate Select Committee on Indian Affairs. The Committee was authorized in February 1988 to conduct a comprehensive investigation into the Federal Government's relationship with Indians.

Strategic Plan --- Strategic Plan for Operations and Systems. A plan developed by the Minerals Management Service Royalty Management Program to implement internal and constituent recommendations for improvements in the royalty program. The plan, employing both short-range and long-range goals, is comprised of the following three documents: "Status Report on Program Accomplishments," "Business System Improvement Plan," and "Selected Options for Change."

TQM --- Total Quality Management. A process to improve service and quality while reducing costs. The process employs management techniques to focus attention on constituent requirements, improve organizational procedures, and create a dynamic working environment in which both management and employees contribute to the improvement effort.

Windfall Profit --- The excess of the removal price of a barrel of crude oil over the sum of the adjusted base price of the barrel and the severance tax adjustment for the barrel.

WPT --- Windfall Profit Tax. An excise tax on a windfall profit from taxable crude oil removed from the premises after February 29, 1980. The tax applies only to production from wells in the United States or in U.S. possessions. The tax was repealed by Congress on August 23, 1988.

Appendix

1990 Table Conversion Chart

Tables in the 1990 Report have been renumbered to accommodate the addition and relocation of selected tables. The table numbers in the 1990 Report and the corresponding table numbers in the 1989 Report are provided for the convenience of our readers.

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